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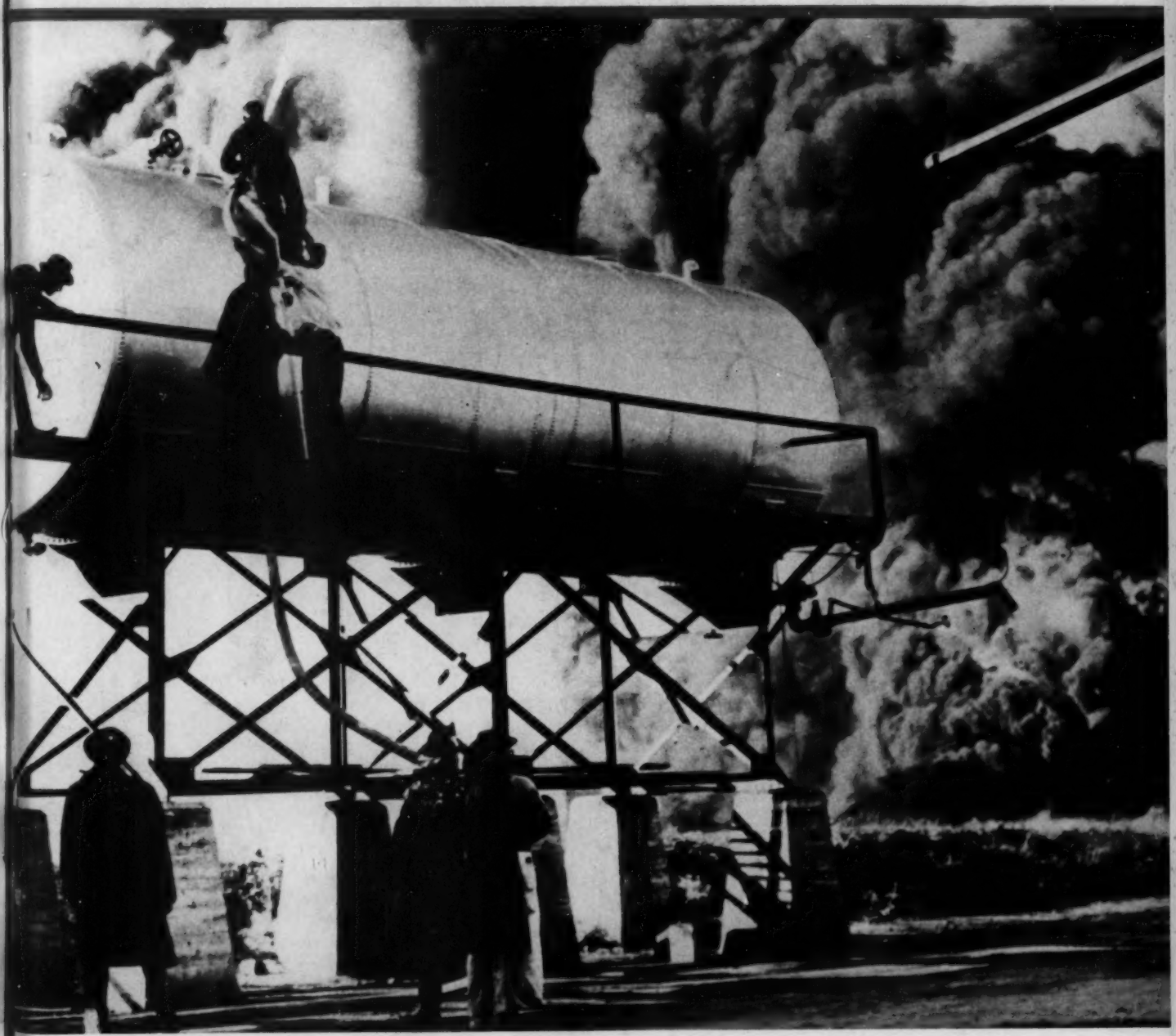
The Journal of the Fire Protection Profession Since 1877

Vol. 86, No. 12 DECEMBER, 1933 Member A.B.C.—A.B.P.



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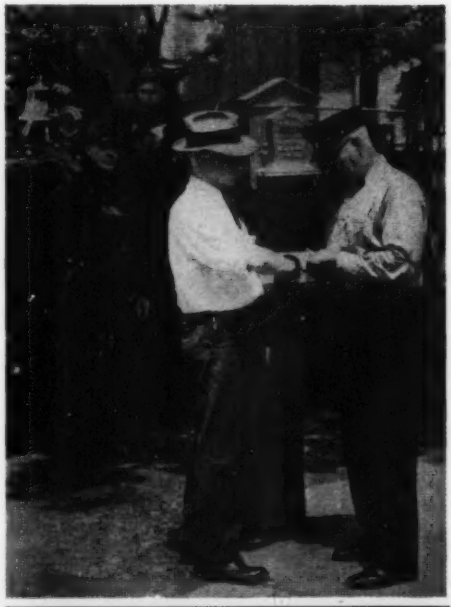

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Here's hoping that a Full measure of everything worth living for is in the bag for all our friends this Christmas, and that there will be a plentiful supply of happiness and prosperity to carry us all joyfully through the years to come.

The Publishers

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MEMBER
Audit Bureau of Circulations
Associated Business Papers

Published the tenth of each month by
CASE - SHEPPERD - MANN PUBLISHING CORPORATION
Also publishers of "Water Works Engineering," and "Municipal Sanitation"
General Offices—24 West 40th St., New York

SUBSCRIPTION PRICE
U. S., $2.00 a year; Canada, $2.50
Foreign, $3; Single Copies, 25c

KARL M. MANN, President
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Entered as second class matter April 15, 1929, *at the Post Office at New York, N. Y., under the Act of March* 3, 1879.

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The purpose of Bunker Suits is to protect the body of the fireman ☞against WATER, RAIN, SLEET, COLD and also to give protection against HEAT when fighting a hot blaze.

These suits have WOOL linings. Genuine MACKINAW 20-OUNCE PLAID WOOL. Sporting goods stores often sell a Mackinaw jacket for more than we price the whole Combination Suit, which will help you realize what a bargain this is.

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Or, you can trust to our reputation to have you satisfied, we know you will be, and send in your full order. ☞**Be sure to give us sizes wanted. Breast measure for coats and Waist measure for pants.**

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(Signed) ***T. P. Treadwell,***
Chief of Department.

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FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 86 DECEMBER, 1933 Number 12

With the Editor

The Fire Apparatus Code

Manufacturers of motor fire apparatus are now operating under a Code. After having established a record for speed of preparation and acceptance by the industry, the code was signed by the President and went into effect on November 8.

It is designed to establish the industry on a sound basis, and at the same time make it conform to the wage and work-day standards established by the National Recovery Administration.

It also aims to correct many unethical practices which have crept into the sale of fire apparatus during recent years, practices which have proved expensive both to the manufacturers and Fire Departments alike.

The motor fire apparatus industry has been passing through a very difficult period during the past four years. This is recognized by General Hugh S. Johnson, Administrator, who stated in his letter transmitting the Code to the President for signature:

"The Industry has suffered a tremendous decrease (approximately 70%) in its sales during the past four years. The capital invested in the Industry has been seriously depleted. Throughout this period, however, the wages of its employees have been steadily maintained, and the extremely high average hourly rate of approximately 72 cents bespeaks the fairness of the members during the depression period."

It is vital to the fire service that manufacturers of fire apparatus remain in business. And unless such protection as offered by the Code is provided there is a possibility of many manufacturers of motor apparatus being closed out. Such a result might prove disastrous to many Fire Departments, for servicing of fire apparatus already in use would be expensive, if not impossible, where the original manufacturer was forced to close his doors. Manufacturers of fire apparatus are entitled to a fair profit on their products, and yet during the past few years conditions in the industry have been such that no manufacturer has made money.

The Code is the work of members of the Motor Fire Apparatus Manufacturers' Association and comprises a very commendable set of rules. All fire apparatus builders, whether members of the association or not, must operate under it. If properly enforced, and it should be in view of the very representative Code Authority appointed, cities and manufacturers alike will profit.

In order that our readers may familiarize themselves with the requirements of the Code, it will be reproduced complete in the columns of this journal. It is well worth study by Fire Department officials who have to do with the purchase of motor apparatus.

Fred. Oberfell

Training Rescue Squads of Fire Departments in

Methods of Resuscitation

By H. R. KEETCH,
First Aid Instructor,
Windsor, Ont., Fire Department

A RESCUE company was organized in the Windsor Fire Department in 1931 for immediate training in oxygen carbon dioxide resuscitation therapy. The growing increase of fatalities of asphyxia from carbon monoxide poisoning, noxious gases and drowning, directed the attention of the Chief of this department to the necessity of organizing a fully equipped and efficiently trained rescue company to handle such emergency cases. The rescue company is divided into two squads, with four operators on each squad. Class and training periods are held each day from 2 p.m. to 4 p.m. During these training periods the men are instructed in general first aid, resuscitation therapy and the general care of the patient. The operators are also given an absolute training in physiology.

An educational program was carried out in this department through demonstrations before business and social organizations, and the public schools of this city. We stressed the necessity of immediately calling a doctor and the Fire Department Rescue Squad when such emergency cases occurred. This procedure has proved of great importance as shown by the records of this department.

The object of a rescue squad in the Fire Department is not to take the place of the medical men, but in case of a serious accident or asphyxiation a doctor, or preferably two doctors, should be called immediately. The object of the rescue squad is then to make the patient as comfortable as possible and to administer first aid treatment, as taught by all first aid manuals, and by so doing to keep the patient alive until the arrival of the doctor, and then to assist him as much as possible. In order for a squad to be successful, it is important that the fullest co-operation exist between the squad and the Medical Association, in the district where it operates. The equipment should include the various articles and instruments that a doctor does not usually have in his kit.

Why a Rescue Squad Should Be Part of the Department

Fire Departments in general are ideal locations for training and developing rescue companies, as they are centrally located and prepared for immediate action. The various equipment and transportation facilities necessary for efficient operation of a rescue company, when called upon in emergency cases, is most conveniently and efficiently operated from Fire Department Headquarters.

The nature of a fireman's duties offers an ideal environment for training periods and class work, an absolute daily necessity, as it perfects co-ordination, which is so essential when working on emergency cases requiring immediate attention.

It is admitted by the medical profession that the necessary equipment for resuscitation therapy could not be efficiently operated by a doctor without the assistance of four trained operators. The cost of equipment, and the number of calls received, would not warrant such an expenditure by an individual doctor.

The Fire Department is one of the logical places where this equipment can be located and operators trained in its use for emergency purposes. It is also admitted by the leading members of the medical profession, and they recognize the fact, that resuscitation is a specialized therapy which requires training according to carefully worked out plans of physicians and instructors especially experienced in this field.

Emergency Cases Require Immediate Resuscitation

In these cases it is necessary to transfer the equipment to the scene of the accident. The development of serious complications from asphyxiation is prevented by intelligent application of oxygen carbon dioxide therapy and the ability to recognize the general condition of the patient immediately upon examination. Otherwise, if the symptoms in severe cases of gassing are not recognized, and treatment administered accordingly, the patient will succumb from postasphyxial complications.

The writer has reasons to believe that the study of resuscitation therapy has been greatly neglected in this country. It is evident that the study of noxious gases and their effect on the human system must be taken from the authors of biological chemistry who introduced the inhalational treatment of 93 per cent oxygen plus 7 per cent carbon dioxide. This treatment was introduced by Yandell Henderson, Ph.D. and Howard W. Haggard, M.D., Sheffield Scientific School, Yale University. Great progress has been made in the treatment of asphyxia from drowning, electric shock and gas poisoning since its introduction.

Observing closely the records of resuscitations in the Fire Departments of America, Henderson and Haggard found that postasphyxial pneumonia had disappeared after severe cases of gassing and successful resuscitations from drowning and electric shock. The records of such cases, in this department, prove their findings to be true. It is a common occurrence to pick up a newspaper and read of a near fatality, the victim of which is confined in the hospital with pneumonia. I have quite often observed such accounts of pneumonia developing in these cases, which is caused from applying the wrong principles of resuscitation therapy. Among cases properly treated, of which we have records, there is not a single report of subsequent pneumonia.

The principles of this training are taken from the monograph series of: "Noxious Gases and the Principles of Respiration influencing their Action" by Henderson and Haggard. A knowledge of poisonous gases and their effect on the human system is required in the treatment of asphyxiation from such gases. This can only be accomplished by obtaining the correct information from authorities in this field and incorporating its principles in the training of a rescue squad.

The successful operation of a rescue squad also re-

quires the co-operation of the medical profession. A thorough knowledge of physiology and anatomy is the foundation for the study of resuscitation therapy and general first aid. Each operator must be trained so that he may use his own judgment in regards to the treatment of asphyxia and general care of the patient. I have noticed that a doctor's confidence is immediately established when he recognizes the principles of their training and quickly observes these points when the squad is in action.

General First Aid In Fire Department

The administration of first aid to firemen for cuts, sprains and burns, eliminates loss of time, as such injuries become infected very easily through neglect or the lack of sterile solutions and bandages being applied, which so often occur to firemen on duty.

Members of the rescue company are trained to treat every wire as a live wire when removing injured victims from a burning building or wreckage. They must assume that any bone, or number of bones, may be fractured and the principles of their training in removing and transferring such patients to a hospital must be directed in such a manner as to cause no further injuries to the patient. A complete knowledge of applying splints to fractures, checking hemorrhages and applying bandages to serious wounds, is required by each member of the rescue company in this department.

Carbon Monoxide Poisoning

Carbon monoxide is one of the chief gases which cause a large number of deaths from asphyxiation in the garages and homes of our principal cities. Along with carbon monoxide, other noxious and irritant gases take their toll of lives each year, regardless of the warnings which are published from time to time in the newspapers. A great increase in the use of gas for heating homes is apparent. Gas is beginning to displace coal and is competing increasingly with oil for heating purposes. Among factors contributing to this development are the demand for evenly heated homes and the convenience of automatic temperature control. The seriousness of breaks, leaks and defective ventilation in furnaces, hot water heaters and stoves, where entire families are asphyxiated in their sleep, is increasing to an alarming extent.

Treatment of Asphyxia

Treatment of asphyxia, as outlined here, was developed to deal with asphyxia caused from carbon monoxide poisoning, drowning and electric shock. The treatment, however, is applied without modification to all other asphyxiants. It is indeed the general treatment used for acute poisoning from all noxious gases and vapors which cause failure of respiration.

The first step in the treatment of asphyxia is to remove the victim immediately to fresh but not cold air. He is laid on his stomach, in a prone position, with his face turned to one side. If the patient is breathing he is given an inhalation of 93 per cent oxygen plus 7 per cent carbon dioxide. If the patient is not breathing manual artificial respiration is started at once, and the inhalation of oxygen and carbon dioxide is administered to the lungs until the patient returns to normal. The after treatment consists of general measures to prevent the development of pneumonia.

The points to be clearly understood in connection with the treatment of asphyxia are that the essential condition consists, not in cessation of breathing, for respiration continues almost to death, but in the interruption of the supply of oxygen to the tissues of the body and especially to the brain and spinal nervous system. In this respect asphyxia by gases contrasts with drowning and electric shock. In both of those conditions respiration is stopped, and artificial respiration with the inhalation of oxygen plus carbon dioxide is the supremely important measure of resuscitation. The carbon dioxide mixed with oxygen acts, however, as a powerful respiratory and heart stimulant. It both replaces the carbon dioxide that the body has lost, and by the increase of respiration induces a deep and full inhalation of oxygen into the lungs. It must be remembered that hypodermic medication is of no value, but rather the contrary in this field.

The essential points in the treatment of acute poisoning from noxious gases are, first, to keep the patient alive until the gas in the blood stream is eliminated and, second, to get it eliminated as quickly as possible. The course of treatment is the same in all cases of gas poisoning, drowning and electric shock.

Resuscitation

There is no other known treatment which brings all the functions of the body back to their normal state so effectively and so rapidly as does the inhalation of carbon dioxide. If the inhalation treatment is discontinued before the blood stream is cleared of all traces of carbon monoxide gas, the patient will succumb from heart strain due to a deprivation of oxygen, or to injuries of the nervous system or subsequent pneumonia. If the patient does happen to recover under any circumstances where the inhalation treatment has been discontinued before the patient has fully recovered, the heart, nerve centres of the brain and spinal cord will be seriously impaired. The patient will suffer from loss of memory, heart weakness or be mentally affected.

First Aid Treatment

Chilling should be carefully avoided after any form of asphyxia, as it greatly increases the liability to subsequent pneumonia. The victim should be wrapped in blankets, and hot water bottles and electric heating pads should be placed around the body. It must be remembered that the application of heat to a patient's body is more dangerous than beneficial in the hands of untrained operators; a man does not complain of being burned while he is unconscious, but the burns that result from hot water bottles and electric pads placed next to the

Fire Prevention Exhibit Arranged at Elgin, Ill.

The Fire and Electrical Departments of Elgin, Ill., arranged an interesting exhibit of hazards during Fire Prevention Week, which was visited by about five thousand persons. A number of the common household fire hazards were displayed.

skin are in many cases the most serious sequel to asphyxiation.

First and foremost the operator must be gentle; he must remember that he is dealing with a human being who may recover and will not wish to be maimed by his treatment. Next, he should follow the general directions and principles set forth in his training in the Fire Department. Under no circumstance should a patient who has been gassed be allowed to exercise. He must neither walk nor even sit up, but must be kept as quiet as possible until all symptoms have passed off.

Work Done by the Windsor Department

During the first six months of 1933, the rescue squad in this department has treated twenty-six patients and successfully resuscitated twenty-three. Not one single case developed pneumonia or suffered from any impairment of the nervous system. Two of these cases were the most severe asphyxiations ever resuscitated in the Border Cities and, to my knowledge, there is no case on record in Canada where such severe complications persisted during a thirty hour fight for the victim's life. This case was an asphyxiation caused from carbon monoxide gas escaping from a coal stove while the family were sleeping in their home.

Another unusual case of asphyxia presented itself within one week from the above mentioned case. We received the emergency call and arrived to find a woman and her four year old son asphyxiated from illuminating gas escaping from an open jet on the oven of the cook stove. The victim was 35 years of age and about to become a mother within two months. Previous to the accident, she had been confined in a hospital undergoing treatment for anaemia. The condition and general health of the patient presented serious complications. Had respiration collapsed, prone pressure could not be administered to this woman owing to her condition. The effect of the gas in her system was liable to cause a miscarriage. The inhalational treatment was administered to this patient for a period of twelve hours before the attending physician pronounced her out of danger. The baby was born two months later and the mother and baby are enjoying good health. These are unusual cases which demand careful resuscitation procedure and correct principles must be applied if they are to be saved at all.

List of Resuscitation Equipment in This Department

One Clark inhalator specially adapted for the treatment of two patients simultaneously.

A reserve supply of 1,600 gallons of oxygen plus carbon dioxide.

Instrument cabinet consists of:

- One air-way tongue depressor.
- Two prs. tongue forceps.
- Two jaw spreaders.
- Two prs. surgical scissors.
- One drinking tube.
- One 50 c.c. hypodermic syringe for administering methylene blue.
- Two 50 c.c. ampules of methylene blue for cyanide gas poisoning.
- Six hot water bottles.
- One medical to commercial adapter for oxygen carbon dioxide cylinders.
- One stethoscope.
- Two 2 c.c. syringes and cases.
- One stomach pump with heavy funnel and bulb.
- One spray for solutions.
- Two 5½-inch Kelly forceps.
- One Mathieu needle holder.
- One tube of silkworm suture material with needles.
- Six No. 2 Chromic catgut kit tubes.
- Six kits No. 2 plain catgut.
- One dozen ampules of adrenlin—1 c.c.
- One dozen strychnin ampules—1/30 grain.
- One dozen camphor and oil ampules.
- One tube morphine—¼ grain.
- One tube atrophine—1/150 grain.
- One 16 oz. tannic acid.
- One 16 oz. carron oil.
- Ten assorted splints.
- One tourniquet.
- Twelve Yucca board splints.
- One No. 4 scalpel and blades.
- Complete assortment of sterile bandages and dressings.

NOTE: The above list of first aid equipment is carried for the immediate use of the attending physician.

Two electric heating pads with rubber coverings for the patient's protection in the event of a short circuit which might be caused through dampness coming from the body of the patient.

Two hundred feet of extension cord is carried in a separate container so that the electric heating pads may be connected up within that distance.

One fahrenheit thermometer for testing temperatures of heat applied to the body. Temperature of water in bottles is maintained at 115 D. F.

Five woolen blankets carried in a specially constructed canvas bag.

Two collapsible stretchers.

A rescue squad emergency car transfers this equipment to the scene of the accident.

(Excerpts from a paper read before the annual convention of Dominion Association of Fire Chiefs at Peterborough, Ont., Can.)

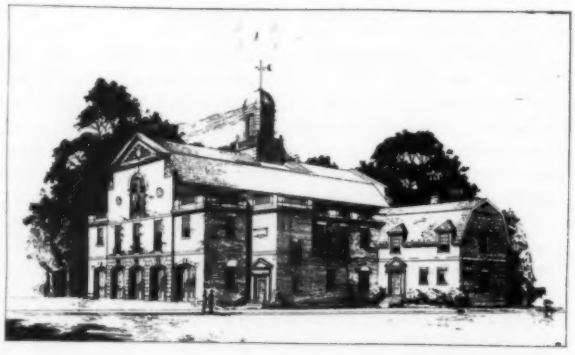
Cambridge, Mass., Has New Station

A new fire house has been completed in Cambridge, Mass., at the junction of Broadway and Cambridge Street and is designed to conform to the architecture of the Harvard University buildings in the immediate vicinity. It is a brick structure of Georgian type. The size and type of window panes match the windows in the college structures and the cupola of the fire house has a painted dome similar to those on the new Harvard dormitories.

Engine Company No. 1, Ladder Company No. 1, and Rescue Company No. 1 will be quartered in the new house. There will be a separate garage at one side of the building for the car of Chief James M. Casey and in the rear will be a 2-story fireproof wing to hold the fire alarm headquarters.

There are five doors for the passage of apparatus. The main floor will provide space for an engine company of two units, a hook and ladder truck, rescue company, and car of the Chief of department.

The dormitories have beds for forty-two firemen and there are separate rooms for the officers. Spacious lockers, shower



Architect's Sketch of New Fire Station for Cambridge, Mass.

baths, toilets, clothes drying rooms, and supply closets are provided. There is a large smoking and recreation room.

Eventually the fire alarm equipment will be transferred from the Inman Square fire house to the new structure and the office of the city electrician will also be moved there.

The house will be placed in service soon after the first of the new year, but it is not expected to have the new fire alarm apparatus installed until mid-summer.

HARRY BELKNAP.

Motor Fire Apparatus Code

Now Governs the Manufacture and Sale of Apparatus

WITH its approval on November 8 by President Roosevelt, the code for "Fair Competition for the Motor Fire Apparatus Manufacturing Industry" became a law. Thereafter manufacturers of such apparatus, whether or not members of the Motor Fire Apparatus Manufacturers' Association, which formulated the Code, must conform to the Code requirements.

For the information of the readers of FIRE ENGINEERING, the Code is reproduced in its entirety in the columns of this journal:

Executive Order

Code of Fair Competition for the Motor Fire Apparatus Manufacturing Industry

An application having been duly made, pursuant to and in full compliance with the provisions of title I of the National Industrial Recovery Act, approved June 16, 1933, for my approval of a Code of Fair Competition for the Motor Fire Apparatus Manufacturing Industry, and hearings having been held thereon and the Administrator having rendered his report containing an analysis of the said code of fair competition together with his recommendations and findings with respect thereto, and the Administrator having found that the said code of fair competition complies in all respects with the pertinent provisions of title I of said act and that the requirements of clauses (1) and (2) of subsection (a) of section 3 of the said act have been met:

NOW THEREFORE, I, Franklin D. Roosevelt, President of the United States, pursuant to the authority vested in my by title I of the National Industrial Recovery Act, approved June 16, 1933, and otherwise, do adopt and approve the report, recommendations and findings of the Administrator and do order that the said code of fair competition be and it is hereby approved.

FRANKLIN D. ROOSEVELT.

The White House, *November* 8, 1933.

Approval recommended: Hugh S. Johnson, *Administrator.*

Letter of Transmittal by Administrator Johnson

November 3, 1933.

The President, The White House.

Sir: The proposed Code of Fair Competition for the Motor Fire Apparatus Manufacturers Industry was submitted to the Administrator on October 10, 1933, by the Motor Fire Apparatus Manufacturers Association, representing approximately 70% of the number of manufacturers engaged in the industry, and 90% or more of the dollar volume of the industry. The Hearing was conducted in Washington, on October 24, 1933, and the Code was revised during the recess of this hearing and was submitted in its present form for approval. All persons who requested an appearance were properly heard in compliance with statutory and regulatory requirements.

Fire apparatus manufactured by this industry is individual and built to specifications; the market for the products manufactured by the industry is limited to municipalities, divisions of State or Federal Government, and large manufacturers, maintaining independent fire protection.

The Industry has suffered a tremendous decrease (approximately 70%) in its sales during the past four years. The capital invested in the Industry has been seriously depleted. The equipment of its principal purchasers, namely *municipalities*, is comparatively modern. Throughout this period, however, the wages of its employees have been steadily maintained, and the extremely high average hourly rate of approximately 72 cents bespeaks the fairness of the members during the depression period.

The number of employees has only decreased in the same period approximately 50%. With the provision of a maximum week of 35 hours and the possibility of credit extensions through possible Governmental loans to its limited consumer market, it is estimated that a 25% increase in wages and an additional 10% increase in employment will result.

ARTICLE I. Purposes.

ARTICLE II. Definitions.

ARTICLE III. Provides a maximum week of 35 hours with a tolerance of 3% for all employees except watchmen, outside salesmen, and delivery engineers and employees engaged in a managerial or executive capacity earning in excess of $35.00 per week. Employees engaged solely in maintenance and repair work, engineers, furnace firemen, and janitors are limited to 40 hours per week.

ARTICLE IV. Establishes a minimum rate per hour of 40 cents and a minimum rate for all employees of $14.00 and provides for full adjustments in all pay schedules.

ARTICLE V. Provides no person under 16 years of age may be employed. No one under 18 years of age may be employed in a hazardous occupation. Prohibition of reclassification.

ARTICLE VI. Provides for a code authority to consist of five individuals representing the industry and two additional non-voting members may be appointed by the Administrator.

ARTICLE VII. Provides the fair trade practices of the industry.

ARTICLE VIII. Provides a merchandising plan.

ARTICLE IX. Modifications.

ARTICLE X. Monopolies.

ARTICLE XI. Provides for filing with association of changes in price.

ARTICLE XII. General.

ARTICLE XIII. Effective date.

Findings

The Administrator finds:

A. This Code complies in all respects with the pertinent phrases of title I of the act including without limitation subsection A of section 7 and subsection B of section 10 thereof.

B. The Motor Fire Apparatus Manufacturers' Association is truly representative of the Motor Fire Apparatus Manufacturers' Industry and the bylaws of this association contain no inequitable restrictions on membership.

C. The code is not designed to promote monopolies or to eliminate or oppress small enterprises and will not operate to discriminate against them and will tend to effectuate the policy of title I of the National Recovery Act.

It is recommended, therefore, that this code be approved.

Respectfully,

HUGH S. JOHNSON,
Administrator.

Code of Fair Competition for the Motor Fire Apparatus Manufacturing Industry

Article I—Purposes

To effectuate the policies of Title I of the National Industrial Recovery Act, the following provisions are submitted as a Code of Fair Competition for the Motor Fire Apparatus Manufacturers' Industry, and upon approval by the President shall be the standard of fair competition for such industry and shall be binding upon every member thereof.

Article II—Definitions

1. The term "motor fire apparatus manufacturers' industry" or "industry" as used herein shall mean the manufacture in the United States and sale by manufacturers of motor-propelled fire apparatus, including pumping engines, aerial trucks, water towers, hook-and-ladder trucks, service trucks, chemical engines, hose cars, salvage cars, squad cars, all other motor-propelled vehicles and equipment for same, used for fire protection purposes, motor pick-up street sweepers, and service parts for same.

2. The application of the Code of Fair Competition to the products enumerated in this article shall be defined as follows:

(*a*) If the operation of any provision of this Code should interfere with the exercise of the existing lawful patent rights or rights under an existing lawful patent licensing agreement, anyone affected thereby may apply to the Code Authority, which shall have power to grant an exemption, subject to the approval of the Administrator.

(*b*) The products listed in Paragraph 1 shall be subject to all the provisions of the Code of Fair Competition and articles except as limited by subparagraph (*a*) hereof.

3. The term "member of the Industry" as used herein shall mean any employer engaged in the motor fire-apparatus manufacturers' industry.

4. The term "member of the Code" shall mean any member of the industry who signifies assent to this Code.

5. The term "Association", as used herein, shall mean the

Motor Fire Apparatus Manufacturers Association, a Trade Association organized *Under* the laws of the State of Delaware, and having its principal place of business at 100 West Tenth Street, Wilmington, Delaware.

6. The term "employee" as used herein includes anyone engaged in the industry in any capacity receiving compensation for his services, irrespective of the nature or method of payment of such compensation.

7. The term "employer" as used herein includes anyone by whom any such employee is compensated or employed.

8. The terms "President", "Act", and "Administrator" as used herein shall mean, respectively, the President of the United States, the National Industrial Recovery Act, and the Administrator of said Act.

Article III—Hours of Labor

1. Members of the Industry shall so operate their plants that the average employment of all factory employees (with exceptions stated below) shall not exceed thirty-five hours per week for the period from the effective date to December 31, 1933, and quarterly thereafter, and the hours of each individual employee shall so far as practicable conform with this average and shall in no case exceed the same by more than three per cent.

In order to give to employees such average of thirty-five hours per week, it will be necessary at times to operate for substantially longer hours, but no employee shall be employed for more than six days or 48 hours in any one week, and all such peaks shall be absorbed in such average.

2. No other employees, except watchmen, outside salesmen, and delivery engineers as termed in this Industry, unless employed in a managerial or executive capacity and earning in no week less than $35.00, shall be permitted to work in excess of 48 hours in any one week, and not more than an average of 40 hours per week for the period from the effective date to December 31, 1933, and quarterly thereafter.

3. Employees engaged solely in maintenance and repair work, engineers, furnace firemen, and janitors shall not work more than 40 hours in any one week, or more than 8 hours in any twenty-four hour period, unless paid one and one-half hours' pay for each hour worked overtime.

Article IV—Wages

1. No member of the Industry shall pay any factory or mechanical worker or artisan less than 40 cents per hour.

2. No member of the Industry shall pay any accounting, clerical, office, service, sales or other employees less than $14.00 per week.

3. Equitable adjustments in all pay schedules of factory employees above the minimum shall be made on or before thirty days subsequent to the effective date of this Code by any employers who have not heretofore made such adjustment; and the first reports of wages, required to be filed under this Code, shall contain all wage increases made since June 1, 1933. Pay schedules shall be subject to review and readjustment by the Administrator. In no case shall rates be decreased.

4. Office boys and girls under twenty-one years of age, superannuated employees, and/or pensioners may be paid at a rate not less than 80 per cent of the foregoing minimum rates, but in no case shall this class of employee constitute more than 5 per cent of the total number of employees.

5. This Article establishes a minimum rate of pay, regardless of whether an employee is compensated on a time-rate, piecework, or other basis.

Combined Stroudsburg Borough Hall and Fire Station

The Fire Department of Stroudsburg, Pa., is housed in the new municipal building. The department consists of two companies, each with a membership of forty active men. Outdoor drills are conducted every Monday evening from May until October. During the other months the volunteer firemen are trained indoors. All apparatus was purchased with funds raised through carnivals, dances, etc.

Article V—General Labor Provisions

1. No person under 16 years of age shall be employed in the Industry, nor anyone under 18 years of age at operations or occupations hazardous in nature or detrimental to health. In any State an employer shall be deemed to have complied with this provision if he shall have on file a certificate or permit duly issued by the authority in such State empowered to issue employment or age certificates or permits showing that the employee is of the required age.

2. Employees shall have the right to organize and bargain collectively through representatives of their own choosing and shall be free from the interference, restraint, or coercion of employers of labor or their agents, in the designation of such representatives, or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection.

3. No employee and no one seeking employment shall be required as a condition of employment to join any Company Union, or to refrain from joining, organizing, or assisting a labor organization of his own choosing.

4. Employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment approved or prescribed by the President.

5. Within each State this Code shall not supersede any laws of such State imposing more stringent requirements on employers regulating the age of employees, wages, hours of work, or health, fire, or general working conditions than under this Code.

6. Employers shall not reclassify employees or duties of occupations performed by employees so as to defeat the purpose of the Act.

7. No employee shall work or be permitted to work for a total number of hours in excess of the number of hours prescribed for each week and day, whether employed by one or more employers. Provided, however, that if any employees should be employed by more than one employer for an aggregate period in excess of such maximum without the knowledge or connivance of any one of such employers, such employer shall not be held to have violated the Section.

8. Employers shall post in a conspicuous place, accessible to all employees, the labor provisions of this Code.

Article VI—Administration

To further effectuate the policies of the Act, a Code Authority is hereby constituted to cooperate with the Administrator in the administration of this Code.

The Code Authority shall have the following powers and duties, in addition to those elsewhere provided in this Code, subject to the right of the Administrator, on review, to disapprove or modify any action taken by the Code Authority.

1. The Code Authority shall consist of five individuals representing members of the Industry selected by a method approved by the Administrator. The Administrator, in his discretion, may appoint not more than two additional members (without vote) to represent the Administrator.

2. The Code Authority is hereby constituted the agency for collecting statistical data as to costs, production, sales, and all other matters affecting the Industry as to which the Administrator may require information, and the members of the Industry shall furnish sworn statements or reports to the Code Authority as may be necessary in order to enable the Code Authority to collect and furnish to the Administrator the information required under the terms of the National Industrial Recovery Act. The members of the Industry shall keep their accounts in such form as may be necessary to enable them to furnish information desired by the Administrator. If the Code Authority should have reason to believe that any report submitted by any member of the Industry is inaccurate, it may designate a disinterested and impartial agency to verify such report by an examination of the relevant books and records of the member of the Industry concerned.

3. The Secretary of the Association shall submit to the Administrator true copies of its articles of association, bylaws, regulations, and any amendments when made thereto, together with such other information as to membership, organization, and activities as the Administrator may deem necessary to effectuate the purposes of the Act.

4. Members of the Industry shall be entitled to participate in and share the benefits of the activities of the Code Authority and to participate in the selection of the members thereof by assenting to and complying with the requirements of this Code

and sustaining their reasonable share of the expenses of its administration. The reasonable share of the expenses of administration shall be deternimmined by the Code Authority, subject to review by the Administrator, on the basis of volume of business and/or such other factors as may be deemed equitable to be taken into consideration.

5. The Code Authority shall designate an agent or agents to investigate complaints or violations of this Code. In the event of any willful violation being disclosed, the Code Authority may present evidence thereof to the proper department, agency, or judicial branch of the Government.

6. Any interested party shall have the right of complaint to the Code Authority and a prompt hearing and decision thereon, under such rules and regulations as it shall prescribe, in respect to any act of any agent or agency designated by the Code Authority to act in its behalf.

7. Any interested party shall have the right of appeal to the Administrator, under such rules and regulations as he shall prescribe, with respect to any decision, rule, regulation, order, or finding made by the Code Authority.

8. In addition to the information requested to be submitted to the Code Authority, there shall be furnished to government agencies such statistical information as the Administrator may deem necessary for the purposes recited in section 3 (*a*) *of the* Act.

Article VII—Trade Practices

No member of the Industry shall engage in any one of the practices condemned in the following Code of Ethics.

1. Employers

(*a*) *Enticing employees from competitors.*—Maliciously enticing an employee or employees of competitors with the intent of unduly hampering, injuring, or embarrassing a competitor or competitors in the conduct of their business.

2. Merchandise

(*a*) *Misrepresentation.*—Misrepresentation as to the quality, weight, or performance of any product sold or offered for sale by any member of the Industry.

(*b*) *Demonstrators.*—No member of the Industry shall reduce the price of a new apparatus under the guise that it is a demonstrator.

(1) All demonstrators now in stock at branches or factory, or in the hands of salesmen shall be registered with the Secretary of the Association. A proper description listing the capacity, type, and serial or factory number shall be given. The Secretary of the Association shall provide the members of the Industry with the list in question.

(2) Repossessed new and used cars shall also be registered with the Secretary of the Association showing from whom repossessed.

(3) When such apparatus is sold the Secretary of the Association shall be notified to whom sold and at what price.

(4) No further apparatus shall be built for demonstrations. Demonstrations at the factory or established branches shall not come within this meaning.

(5) New show cars shall not be sold except at the member of the Industry's established prices for new cars.

(*c*) *Obsolete Goods.*—The Code Authority shall make recommendations to the Administrator concerning the regulation of the disposal of obsolete goods.

3. Invoicing

(*a*) No member of the Industry shall invoice any customers for products other than those actually shipped against the invoice.

(*b*) No member of the Industry shall omit from any invoices any items pertaining to the sale.

(*c*) No member of the Industry shall permit a customer to make any deductions from the invoice not covered by the terms of sale in making his remittance.

(*d*) When a product is sold on a deferred payment plan, no member of the Industry shall allow a period to elapse after delivery of said product before interest on such deferred payments begins to accrue.

(*e*) No member of the Industry shall ship or in any way deliver free goods of any kind to any customer. This does not refer to replacements due to defective material or inferior workmanship.

(*f*) No member of the Industry shall sell any article whatsoever, whether or not a product of this Industry, at less than its published price, for the purpose of influencing the sale of motor fire apparatus, and/or motor pick-up street sweepers.

4 Advertising

(*a*) No member of the Industry shall advertise, make statements or inferences, which directly or indirectly reflect falsely upon the character, merchandise, policies, or financial standing of any competitor.

5. Subsidies

(*a*) Members of the Industry shall not encourage or permit lavish entertainment of a customer by their employees.

(*b*) No member of the Industry shall make any allowance to a customer for alleged but not actually defective merchandise, alleged but not actual shortages, or for adjusting alleged but unfounded complaints of any kind.

(c) No member of the Industry, or its representative or representatives, shall directly or indirectly offer or give any discount, gratuity commission, service or accessory to a customer or his agent for the purpose of inducing the customer or his agent to purchase the products of the Industry as defined herein. Nothing herein shall prevent conduct pursuant to any warranty of the manufacturer.

6. Sundries—Interference With Contractual Relations

(*a*) Maliciously inducing or attempting to induce the breach of an existing oral or written contract between a competitor and his customer or source of supply, or interfering with or obstructing the performance of any such contractual duties or services.

(*b*) The Industry, subject to the approval of the Administrator, shall within thirty days following the effective date of this Code, determine a standard for trade-in allowances of used motor fire apparatus, and/or motor pick-up street sweepers, and the standard established shall be the basis of purchases of used motor fire apparatus, and/or motor pick-up street sweepers. Old apparatus, excepting motor pick-up street sweeers, taken in trade must be recovered from customer's possession. In event of resale to same customer, it shall not be sold at less than the amount allowed on purchase of new equipment.

(*c*) No member of the Industry shall sell any product of the Industry below cost, which shall be determined on the basis of a uniform system of cost accounting to be developed by the Code Authority, subject to the approval of the Administrator.

Article VIII—Merchandising Plan

Each member of the Industry shall adhere to the terms of the following Merchandising Plan:

(1) *Products.*—The following products are subject to all of the provisions of this Merchandising Plan:

(*a*) All pumping engines.
(*b*) All types of chemical cars.
(*c*) All types of hook-and-ladder trucks.
(*d*) All types of aerial trucks.
(*e*) All types of water towers.
(*f*) All types of hose and squad cars.
(*g*) All types of service trucks.
(*h*) All other types of motor-propelled vehicles used for fire-protection service.
(*i*) Motor Pick-up Street Sweepers.

(2) *Territory.*—This Merchandising Plan applies on sales for shipment from members of the Industry's factories, warehouses, and branches into all territory within the United States.

(3) *Classes of Buyers.*—The following are the principal classes of buyers in this Industry:

(*a*) Municipalities.
(*b*) Volunteer fire companies.
(*c*) Industrial concerns.
(*d*) State Governments and political subdivisions of same.
(*e*) U.S. Government.

4. *Prices.*—Prices shall be established as determined individually by each member of the Industry.

5. *Terms.*—Terms shall be as determined individually by each member of the Industry. However, the down payment in each case shall not be less than 33 1/3% of the purchase price and deferred payments shall not extend beyond a period of two years, excepting in the case of motor-pick-up street sweepers, in which case the down payment shall not be less than 25% of the purchase price and deferred payments shall not extend beyond a period of three years unless a motor pick-up street sweeper is sold on a lease plan, in which event the terms may be equal periodical payments extending over a period of not to exceed two years.

6. Discounts

(*a*) *Quantity Discounts.*—Excepting for motor pick-up street sweepers, the maximum for quantity discounts shall be as follows: 2% for 2 pieces, 3% for 3 pieces, 4% for 4 pieces, 5% for 5 pieces, 6% for 6 pieces, 7% for 7 pieces, 8% for 8 pieces, 9% for 9 pieces, 10% for 10 or more pieces.

Note.—"Pieces" referred to in "(a)" apply to units as defined in Paragraph (1).

Products

(*b*) *Cash Discounts.*—Excepting for motor pick-up street sweepers, in addition to the quantity discounts a maximum dis-

count of 5% may be allowed for cash sales, providing payment is made within 30 days from date of invoice.

Cash Discounts.—Cash discounts for motor pick-up street sweepers—a maximum discount of 2% may be allowed for cash sales, providing payment is made within 30 days from date of delivery.

7. *Standard Equipment Specification.*—The Code Authority shall make recommendations to the Administrator as to what constitutes standard equipment. Upon approval by the Administrator, such specifications shall embody the standards for the Industry.

8. *Order and Contract Forms.*—Each member of the Industry, excepting manufacturers of motor pick-up street sweepers, shall sell according to contracts substantially similar to uniform forms of contract, to be prepared by the Code Authority as and when approved by the Administrator.

Article IX—Modification

1. This Code is hereby made expressly subject to the right of the President, pursuant to Section 10 (b) of the National Industrial Recovery Act, from time to time to cancel or modify any order, approval, license, rule, or regulation issued under Title I of said Act, and specifically, but without limitation, to cancel or modify his approval of this Code or of any conditions imposed by him upon such approval.

2. It is contemplated that from time to time additions to or modifications of this Code will be submitted to the President by the Industry, as experience or changes in circumstances may indicate. Upon approval by the President, such additions or modifications shall become part of this Code.

Article X—Monopolies, etc.

1. Nothing herein contained shall be construed or applied so as to:

(*a*) Promote monopolies or monopolistic practices.
(*b*) Eliminates, oppress, or discriminate against small enterprises.

Article XI—Price Changes

1. Upon approval of this code by the President, each member of the Industry shall immediately file in the office of the secretary of the Association, a complete schedule of his prices and terms of sale then in effect on all motor fire apparatus and motor pick-up street sweepers, as defined in Article II of this Code.

Sufficient copies of such price schedules shall be filed to enable the secretary to distribute the same to all members of the Industry. The secretary shall distribute copies of such price schedules to each member of the association and to each non-member of the association who has assented to the code and has agreed to bear his reasonable share of the expenses of the administration of the code as provided in Section 4 of Article VI of this code. Upon the request of any other member of the industry for copies of such price schedules, the secretary of the Association shall furnish copies thereof to such applicant at a charge therefor not exceeding the actual cost of copies furnished plus postage.

2. No member of the Industry shall sell any motor fire apparatus or motor pick-up street sweeper at prices lower or on terms more favorable than the prices and terms in such filed schedules, unless a revised schedule is first filed by him as hereinafter provided.

3. Each member of the Industry may file a revised schedule of prices and terms of sale with the secretary of the association, to take effect within not less than fifteen (15) days after the date of filing such revised schedule. Upon the filing of such revised schedule by such member, the secretary of the association shall immediately notify all other members of the Industry of such change. Thereupon, all other members of the Industry may file revised schedules of their prices and terms of sale, which, if filed prior to the effective date of the revised schedule first filed, shall take effect upon such effective date.

4. The secretary of the association shall distribute to all members of the association and to all other members of the Industry who have assented to the code and agreed to bear their reasonable share of the expenses of administration of the code, copies of all such revised schedules. Upon request of any other member of the Industry, the secretary shall furnish such applicant with copies of such revised schedule at a price not exceeding the actual cost thereof plus the postage.

5. The price system herein prescribed shall apply to prices of all products of the Industry.

6. The operation of the foregoing provisions shall be at all times subject to the approval of the Administrator.

Article XII—General

If any member of this Industry is also a member of another Industry the provisions of this Code shall apply to and affect only that part of his business which is included in this Industry.

Article XIII—Effective Date

This Code shall become effective on the day after its approval by the President.

When a District Goes Wet

An automobile collided with a hydrant in Oakland, Cal., and this geyser was the result. The damaged vehicle is at the left.

Kansas City Has New Squad Car

The Underwriters' Fire Patrol of Kansas City, Mo., has placed a White salvage truck in service. It has an all-steel body, and the chassis has hydraulic and manual emergency brakes. Bullet proof glass is used in the windshield. Warning signals consist of a locomotive bell and an electric siren together with a friction drive siren.

New Salvage Car of Kansas City, Mo.

Equipment is carried in box compartment with the exception of the 100 tarpaulins and the fifteen sacks of sawdust. In convenient places are two sets of extension ladders, rolls of tarpaper, first aid kits, sprinkler heads, shovels, mops, brooms, fire extinguishers, box lights, lath hooks, tubs, rope, squeegees, and so forth. The truck carries twice the amount of tarpaulins and three times the number of sacks of sawdust carried on the old designed salvage truck. Chief W. H. Gardner, in designing the body, wanted to eliminate frequent returns to the stations for additional supplies.

London Salvage Chief Arrested

Capt. B. E. Miles, Chief of the London, England, Salvage Corps, was charged with "having unlawfully conspired to prevent the administration of justice." He is charged with working with an insurance assessor on cases involving arson and fraud. Police stated that more serious charges would be made. Bail was set at £10,000.

The Importance of and Necessity for

Training in Fire Departments

By CHIEF HENRY A. FOX,
Fire Department,
Boston, Mass.

Chief Henry A. Fox

THERE has never been a time in the history of our Nation when the demand for trained men has been so great as it is today. This applies to Fire Departments as well as all branches of industry.

When we consider the amount of money that is expended by the cities and towns throughout the country for modern fire apparatus, tools, appliances and equipment, it must be apparent to everyone the necessity of having a trained department in order to obtain the maximum results from the use of such equipment. For this reason, every up-to-date Fire Department has established a system for training its members.

The city of Boston was the second large city in the United States to establish a training or drill school for the members of the department. Along in the early "nineties" our first drill school was inaugurated in an old stable on Bristol Street. Then the school was transferred to the sugar refinery in East Boston, where all members under forty years of age were obliged to attend the school for a period of ten days.

Drill Yard, Tower, Etc., Provided For

When the present Headquarters Building on Bristol Street was completed in 1894, provisions were made for a drill yard, drill tower, smoke-house, etc., and the school was transferred to this location, where it has since remained. All new members were required to attend the Drill School for a period of thirty days, which practice has been carried on up to the present time.

In this Drill School the newly appointed members receive a thorough course of instructions and training in the raising of ladders, running of lines of hose, use of all tools and appliances; and in fact, everything which pertains to their duties as firemen.

Shortly after the establishment of the Drill School, the idea was conceived of having an annual drill whereby all the companies with their apparatus were brought to the Drill Yard and put through a course of evolutions similar to the work which would be performed at a fire.

Weekly Company Drill

The next development was the so-called weekly company drill. From May 1 to November 1, these drills are conducted twice a week outside of company quarters; lines of hose are run, ladders are thrown and various evolutions performed. During the winter months from November 1 to May 1, the companies are drilled twice a week in quarters in the use of various tools and appliances and members questioned in regard to their knowledge of the location of first alarm boxes to which they respond, routes followed in response thereto, and other matters relating to their work.

With the advent of motor apparatus and various other modern improvements, it became necessary to establish other schools of training, such as the Chauffeurs' School; Pump School, where men are trained in the operation and care of motor pumps; and the Telegraph School, where the Morse Code is used. All members of the department are required to attend these schools from time to time as directed.

Establishment of the Fire College

The next development in the training of firemen has been the establishment of the Fire College, and while some few years ago we conducted a college in a small way, in November, 1931, Fire Commissioner Edward F. McLaughlin reorganized the Fire College on a large scale, so that at the present time we have in Boston a college which is second to none in the entire country.

At this college the officers and men are taught a systematic and uniform method of operation at fires and are provided with a technical knowledge necessary to their work. Lectures and practical demonstrations are given not only by the ranking officers of the Fire Department, but also by trained Engineers and representatives of insurance organizations and public service corporations.

Value of Training Amply Demonstrated

I have attempted to enumerate briefly the training methods followed in our department and we feel that every possible step has been taken along these lines in order to maintain the department at a high standard of efficiency. The value of this training is amply demonstrated from time to time at all fires of any consequence, as is evidenced by the fact that since these training methods have been placed in operation, no fire has developed into what we term as the conflagration stage.

Instruction of Industrial Fire Brigades

With the development of modern industry and the establishment of large industrial plants, many of which maintain their own private fire brigades, the organization, training and instruction of such private brigades is a most important matter; not only to the plant itself, but to the municipal Fire Department. An improperly instructed unit of this kind may prove to be a hindrance rather than a help to the Fire Department.

The strength of such brigades, amount of equipment and frequency of fire drills will naturally depend some-

what upon the size of the plant and the nature of its occupancy and hazards. It is, of course, essential that such units have a system of organization with a competent directing head.

The men selected to serve in these private brigades should be thoroughly instructed in the use of the equipment at their disposal. They should also be frequently drilled and trained in fighting fires in different sections of the plant so that in the event of an emergency it might be possible with the efficient use of private fire appliances to hold a fire in check until the arrival of the local Fire Department. The prompt and judicious use of first aid fire-fighting equipment is a most important means of saving considerable property in large industrial plants.

It is also advisable to make arrangements to have the local Fire Chief make frequent visits to the plant for the purpose of checking up the equipment and occasionally drilling the men, as well as to give them the benefit of his knowledge and experience.

Cooperation Very Essential

Cooperation between the local Fire Department and the private fire brigade is very necessary as, of course, the extinguishment of a fire of any consequence naturally devolves upon the regular Fire Department.

One of the best methods of doing this is the prompt notification to the local department. All the employees of the industrial plants should be required to know the location of the nearest fire alarm box so that in case of fire the alarm may be given without any delay. The quick response of the local Fire Department may mean the difference between an incipient fire with a small loss and a disastrous fire with a large loss of property, as well as the consequent loss of employment for a great number of employees.

It is quite as important for the private fire department organization of a plant to concern themselves with the prevention of fires as it is for them to be proficient in extinguishing or holding them in check after they have once started. The officers and members of the fire unit should become thoroughly familiar with the various fire hazards throughout the plant and see that they are protected in accordance with laws or regulations, information regarding which may be readily obtained from the local Fire Department. Carefulness and good housekeeping are the two most essential features in fire prevention.

Berlin Firemen Take to Boat

The Spreewald is a beautiful waterway that runs through one of the most popular districts of Berlin, Germany. Many of the most exclusive dwellings border this waterway. To properly guard these residences from loss by fire, the city has established a new fire-fighting corps that is unusual. Instead of using motor power to convey them to a fire, this group of men employ flat boats in which they make their way to desired location. The boats are fitted with portable fire engines and sufficient hose.

Hazard of False Economy

In conclusion, let me call your attention to a condition which many Fire Departments throughout the country are facing today. The nation-wide drive for economy and the demand for reduction in the personnel of our municipal departments, will, if it affects our Fire Departments to a great extent, break down our first line of defence. This has already been done in a number of cities by the disbanding of companies and closing of fire stations.

The function of our Fire Departments is to save life and property, and while we may have the most modern apparatus, tools and appliances which human ingenuity can devise, if we lack man power, the best results cannot be obtained.

The value of training in fire fighting is unquestionable and is something that is greatly needed, not only in our public Fire Departments, but in private departments as well, if we hope to achieve any kind of proper results.

(From an address delivered before the twelfth annual conference of the Massachusetts Safety Council.)

Oliver Heads New York Fire School

Battalion Chief David J. Oliver, eleven times cited for valor or efficiency has been selected by Chief John J. McElligott to take charge of the New York Fire Department School of Instruction. As Drill Master of the Department, Chief Oliver will train the recruits in the rear of old Fire Headquarters on East 68th street. He succeeds Battalion Chief Thomas Larkin who recently retired.

Battalion Chief D. J. Oliver

Chief Oliver has been a fire-fighter twenty-seven years and has served all of his time in busy fire companies in the high hazard sections of Manhattan. He was appointed originally to Hook & Ladder 10 in Fulton street in lower Manhattan. He was one of the first of the Department's chauffeurs. In 1911 he was sent to Minneapolis to "break-in" on the first gasoline propelled pumping engine the New York Fire Department bought.

As Battalion Chief he served in the 2nd district at Lafayette and White Streets. He holds several department medals for heroism and is regarded by his comrades as exceptionally well fitted for the post of Drill Master. In picking him for the position, Chief McElligott said he has been familiar with Chief Oliver's work and his spirit of the fire service. He has two brothers in the Fire Department—Lieut. Matthew Oliver and Fireman Joseph P. Oliver.

WM. JEROME DALY.

Oddities in Fire News

Beer is back in all its amber glory, and according to an incident in Burlington, Vt., it is also being used to extinguish fires. A fire started in the basement of a building on the first floor of which was a restaurant. Flames melted copper coils through which beer was pumped upstairs, and the resultant beer flood extinguished the fire.

Out in Kansas, a night watchman slept through a disastrous fire that destroyed buildings and property valued at several thousands of dollars. When he awoke in the morning, he found his cot in the basement completely surrounded by water.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

PERIODICAL MEDICAL EXAMINATIONS

SEDENTARY occupations make little demand on the reserve of body energies. Firemen, who are required to work for long stretches and under severe weather conditions, demand the greatest amount of service from their bodies. They must approach the condition of physical perfection.

Often the work results in some organic trouble which can only be discovered in time through a most careful physical examination. If manifestations of pain were depended upon to reveal such trouble, the case would require many months of medical treatment and would remove an efficient worker from the active roll.

Periodical medical examinations are depended on in many departments to check the physical condition of the firemen. They are of immense value to the men.

In the box on this page is the problem in full that is discussed in this issue. It is a continuation of the discussion which appears in the previous issue. In the box on the following page is the problem that will be treated in the next issue. Should you have some comments that you would like to add to the next discussion, you are invited to write to the "Round Table Editor," FIRE ENGINEERING, 24 W. 40th Street, New York, N. Y.

Discussion of the Question

John Kahl, Acting Chief, Baltimore, Md.: Personal health records are kept of each individual in the service. An infirmary, with all the necessary instruments and appliances is maintained by the Fire Department of Baltimore. There is a surgeon and physician in charge of the infirmary for the physical care of the members of the department. All members are given surgical and physical attention with medicine free, and hospital service if injured in line of duty.

Members after fifteen years service, who develop poor physical condition, are either dropped from the rolls, or retired. All cases are dealt with upon their merits.

All applicants are required to pass both the department surgeon and physician before becoming eligible for appointment in the service.

I do not think present method can be improved upon at this time.

Joseph B. Shirk, Chief, Gary, Ind.: Our men receive a thorough mental and physical examination, Wassermann test, etc., and if passed by the doctor of the Fire Department are admitted to the department. After three months the applicant is re-examined by the Pension Board physician and if O. K. is put on the pension fund. After he has worked for a year and then becomes physically disabled he is sent for treatment. If, for instance, it is tuberculosis he is sent to the sanitarium and is re-examined every three months and is kept there until well again and comes back to the job. I don't believe our present method could be improved on much, as everything possible is done, I believe.

Walter F. Israel, Chief, Detroit, Mich.: We do not give annual medical examinations. Men entering the Department are first examined by the Civil Service doctor, then by the department doctor. After his probationary period he is examined again by our department doctor before being confirmed, and then also by the Firemen's Fund doctor. He is not examined again until he comes up for promotion. The men have free medical service at all times for sickness or injuries.

When a man has been in the service fifteen years and can prove that his poor health condition was caused from exposure in the department, he is given a pension.

I believe the present method we use could be improved upon by giving the members' teeth an examination periodically.

O. J. Parker, Chief, Atlanta, Ga.: We do not have any set time for examinations.

Where a man has been in the department for as long as fifteen years and we feel he is not able to perform his duties we would have him examined by the City Physicians and we would be governed by their examinations.

I believe that our method is a good one because of the fact that there is a tendency to keep the men in a state of uncertainty if you have regular time for physical examinations. We can generally tell when a man is not able "to deliver the goods" on account of his physical condition.

F. J. Ostertag, Chief, Burlington, Iowa: Men desiring positions on this department are required to pass physical and mental examinations before being placed on the eligible list, and when placed in the department they are on six-month probation before being permanently appointed.

Men in poor physical condition are put on pension if their condition does not warrant a recovery, but if their condition is temporary, they receive full pay while off duty.

I believe the present method could be improved by a more rigid physical test, rather than by pull through the physician or Councilman.

J. K. Bennett, Ex-Chief, Hutchinson, Kan.: We have a medical examination when the applicant goes to work in the department and such other examinations as the Chief may deem necessary.

We have always tried to retain a man on the department after 15 years of service giving him every chance to recuperate, never discharging him unless he contracted his ailment in the line of duty.

I think all matters of physical conditions should be left entirely in the care of the Chief and no one else. At the present time our Mayor has used the medical examinations for an excuse to discharge several old members so they could be replaced by political promises.

Lawrence E. Reif, Chief, New Haven, Conn.: The only medical examination given the men is upon their entrance to the Department and when taking examinations for promotions.

If illness is caused by fire duty after fifteen years service he would be elig-

HERE IS THE PROBLEM

Does your department give the men annual or periodical medical examinations?

What do you do where a man has been in service about fifteen years, and you find he is in poor physical condition?

In what way do you believe your present method of conducting physical examination of the men could be improved?

ible for retirement, or he would be detailed to some light duty if possible.

By having a regular paid fire department physician to look after the men's health, we believe it would improve our present method. We now have six department physicians who only get paid when they attend a man injured on duty. We are under compensation insurance and the physician is paid by the insurance company.

Harry Voshell, Chief, Indianapolis, Ind.: General examinations are made by recommendations of the Chief of the Department to the Board of Public Safety and they in turn, give orders for same.

We order a man who has served for fifteen years and is taken sick, before the city doctor and if he finds him physically unfit, he is retired from the department. If he is a member of the Pension Fund, he participates in same.

I believe our present method could be improved by making it mandatory for these examinations to be made at least once a year.

S. J. Flores, Chief, Shreveport, La.: No regular examinations are given in our department.

If a man's condition is so bad that he is unable to work after having been in the service for fifteen years he is pensioned. I think we could improve our method by examining men at least once a year.

James Hrach, Chief, Berwyn, Ill.: Our department does not give the men examinations after they are appointed.

If after a man has served fifteen years and is in ill health and this condition was brought about from injury or exposure in service, I would recommend that he be placed on the pension list. On the other hand if his condition was caused by intemperance I would recommend that he be dismissed from the department.

I believe yearly medical and physical examination of the men would be of great benefit both to them as well as to the department.

L. P. Willis, Chief Pueblo, Col.: We do not give our men any medical examinations.

We have been fortunate in not having any of our firemen in poor health. We had one man that lost his eye in line of duty and we gave him a telephone operator's position. I believe that all firemen should have a medical examination once a year.

J. C. Sullivan, Chief, Lowell, Mass.: If a man is incapable of performing his duties, after serving the department for about fifteen years, and said injury was received while in line of duty, he is pensioned on half pay.

John B. Falvey, Chief, Terre Haute, Ind.: We have no periodical examinations, the only examinations being that when a man is appointed. I believe, however, that yearly examinations are excellent, for I believe it has a tendency to encourage the men to keep physically fit.

A man in poor physical condition, after serving the department for fifteen years, is, if possible, given some lighter job such as driving the supply truck in order to take them out of fire duty.

I believe a stricter physical examination together with an age limit of 25 years for entrance into the Fire Department would improve our present method.

Forest Craig, Chief, Kokomo, Ind.: Our department does not give the men annual or periodical medical examinations.

When a man's health is poor after a period of service, and if there is no position on the department he can fill, he is placed on pension.

I believe our present method could be improved by having each man take an annual physical examination.

W. Dowling, Chief, Jacksonville, Fla.: The men in our department are given a rigid medical examination when entering the department but are not examined after that.

When men in our Department are not able to perform their duties they are retired on disability pension.

When a man begins to show physical deficiency, he should be given a medical examination by the Department Physician. Would suggest that if possible and finances permit that an X-Ray be taken to see that no internal trouble exists in such a case.

Fred J. Washburn, Chief, Auburn, N. J.: No medical examination is provided for in our department.

The Pension Fund rules and regulations provide that any member after fifteen years service found disqualified or unable, physically or mentally, by reason of disability, disease, or other impairment, contracted without misconduct on his part, to perform his duties as an active member in the department, may be pensioned.

The department should employ a physician who would make at least one visit to any member reporting ill or disabled. In this way both the member and the department would be protected.

George Boughner, Chief, Grand Rapids, Mich.: We have periodical examinations in our department.

If illness after fifteen years' service is brought about through serving the Fire Department, he is pensioned. Otherwise, he must seek other employment.

I believe that men should be examined at least every two years and the examination should be more rigid. For example, recently one of our men was examined and shortly after was taken sick and was off duty for nearly four weeks.

James Marsh, Chief, Granite City, Ill.: We work under three Commissioners who are appointed by the Mayor and confirmed by the Council for three, two, and one year. We have a pension law and men are pensioned after twenty years service and fifty year age limit. According to our by-laws under the Commissioners I am required to send a man for an examination any time during the twenty years if I see he is in poor physical condition.

Peter Beckerle, Chief, Danbury, Conn.: We have no yearly or periodic examination for members of the department.

If a man serves for about fifteen years and is in poor health he can be retired on pension or placed on some job he can take care of.

Henry A. Fox, Chief, Boston, Mass.: Members of our Department who are sick or injured, or otherwise not in good physical condition are required to report to the Department Medical Examiner for examination.

Our men who are unable to perform active fire duty are after years, eligible for pension; in some cases where members are qualified they are assigned to special duty. Our present system seems to work out satisfactorily.

W. S. Mason, Chief, Bangor, Me.: The only time members of our department are subject to a medical examination is upon entering the department and when injuries are received.

When a man has served the department for about fifteen years, he is either appointed as floor man, or telephone duty or retired on half pay.

We believe the present method could be improved by having annual examinations or examinations when a man is injured.

Ward A. Wantz, Chief, Anderson, Ind.: We do not give annual or periodical medical examinations. If a man after fifteen years' service is found unfit for duty we place him on pension.

The present method might be improved by annual or semi-annual examination.

W. A. Foster, Chief, Boise, Idaho: Yes, we do have annual medical examinations.

If a member is not able to serve after 15 years' service he is dropped from the department.

I believe the present method could be improved by civil service and a pension fund.

N. Belfy, Chief, Muskegon, Mich.: At the present time, we do not give annual or periodical medical examinations. We have had only one case such as you give and this man was put on the welfare roll.

We believe the present method could be improved by having periodical examinations, and city ordinances to take care of all cases of disability found.

Fire Department, Santa Barbara, Cal.: We have no annual or periodical examinations in our department. I believe that men should be examined annually, however.

Reuben E. Estes, Chief, Lewiston, Me.: At the present time

HERE IS THE PROBLEM FOR THE NEXT ISSUE

A suggestion has been made that automobiles be equipped with knife switches near the battery so that the circuit may be opened when the car is stored and thus reduce the fire hazard.

What is your opinion concerning the idea?

Do you believe that motorists could be made to take to the plan?

What procedure would you follow to win the public over to the plan?

we do not have the men examined annually or periodically, but we intend, beginning the first of the year, to use this method which we believe is an excellent one. If a man is unable to continue his services he is laid off, unless he has served 30 years; then he is pensioned.

John H. Lennox, Chief, Camden, N. J.: We do not give annual or periodical examinations.

If a man serves fifteen years and is then unable to work longer due to ill health he is pensioned.

John G. Ford, Chief, Trenton, N. J.: Annual or periodical examinations are not given men in our departments.

A man who has served for fifteen years and is taken ill and unable to work is examined by the fire surgeon and if unfit for fire duty he would be retired on a pension.

This manner of handling the above situation we believe is just to all concerned and is hard to improve.

I. M. Hubbard, Chief, Greenwich, Conn.: We have but four full paid men and three part paid men in our department. Should a man be ill after serving the department for a long period the matter is taken up with the Mayor for adjustment.

Le Roy Trevett, Chief, Framingham, Mass.: We do not hold any examinations in this department, after a man passes the Civil Service examination upon entering the department.

Joseph Roberts, Chief, Tucson, Ariz.: This department has annual medical examinations.

We retire men at half pay if, after serving for fifteen years, they are unable to work, due to poor physical condition.

Ernest G. Beckert, Chief, West New York, N. J.: A man who can no longer serve after fifteen years in the department is recommended to the pension board for consideration of pension.

I believe that we should have a doctor who will make examinations of men and give an honest report and pass only legitimate candidates for the department, in accordance with laws properly enforced.

W. L. Ryan, Chief, Dubuque, Iowa: No periodic or medical examinations are given in our department. Should a man become ill and unable to work after being with the Fire Department for some fifteen years he is assigned to light duty or retired on pension.

C. L. Ingram, Chief, Montgomery, Ala.: I do not believe annual examinations are necessary as we work twenty-four hours and men are under observation continuously. A man draws a pension both from the city and our fund should he be unable to serve the department due to poor health after 15 years' service.

Lloyd Gramely, Chief, Aurora, Ill.: We have no annual or periodical examinations. We have had men become ill after fifteen years' service and we have put them on as operators of the switchboard.

C. H. Russell, Chief, Kalamazoo, Mich.: No medical examinations are given either periodically or annually. A man is put on pension should he become ill after 15 years' service. I believe that men should be given a physical examination yearly.

G. Rehm, Chief, Mobile: We have no medical examinations in our department. I believe, however, that a strict examination should be given by the City Health Officer when men make application for the Fire Department. A man is retired after serving 15 years, should he be in poor physical condition.

W. R. Price, Chief, Springfield, Mo.: No medical examinations are given except at time of appointment. After a man has been in the department for a number of years and is in poor physical condition, a job is provided for him that will not overtax his strength.

John J. Gilday, Chief, Hoboken, N. J.: I believe that men should be examined at least once a year, as at the present time we do not employ this system.

A man is retired on half pay when he is unable to work after serving for a long period.

John A. Fisher, Chief, Duluth, Minn.: A man who is unfit for service after serving the department for fifteen years is retired on a disability pension.

Shinglehouse, N. Y., is to purchase a 350-gallon pumper, under tentative arrangements made by the Borough Council.

At a meeting of the Mid-Hudson-Harlem Valley Fire Chiefs' Association held at Dover Plains, N. Y., plans were discussed for a plan of mutual aid. A map is being prepared of the various fire districts.

Chiefs' Club Honors Selden R. Allen

Chief Selden R. Allen, of Brookline, Mass., President of the International Association of Fire Chiefs, was honored November 16 by a testimonial luncheon given in the Hotel Statler, Boston, by the Fire Chiefs' Club of Massachusetts. He was presented with a chest of silver and Mrs. Allen was given a large bouquet of roses. Speakers paid high tribute to his record in the fire service. The large gathering of fire officials which filled the Georgian Room in the hotel testified to the esteem in which he is held by fire fighters of New England.

Chief Selden R. Allen

Assistant Chief Thomas F. Dougherty, of New York, came for the luncheon and was elected an honorary life member of the club. The meeting was opened by the President, Chief Fred A. Clark, of Attleboro, who then turned the proceedings over to James M. Hurley, Civil Service Commissioner, who acted as toastmaster.

The souvenir menu contained the portrait of Chief Allen on the cover and inside was his service record reading as follows: "Entered Brookline Fire Department, January 13, 1898; promoted to Lieutenant, October 9, 1899; promoted to Captain, May 17, 1919; promoted to Deputy Chief, March 18, 1922; appointed Chief of Department, October 1, 1923. President, Fire Chiefs' Club of Massachusetts, 1928-1931; President, New England Association of Fire Chiefs, 1930-1931; President, International Association of Fire Chiefs, 1933."

Among those attending were Supt. Peter E. Walsh, of the Boston Protective Department; Chief Frank E. Tracy, of Woburn, former president of the Fire Chiefs' Club; Alfred H. Miner, Chairman of the Massachusetts State Fire Prevention Committee; Percy Charnock, of the New England Insurance Exchange; Fire Commissioner Henry F. Walton and Chief Albert E. Hiller, of Plymouth; Louis W. Capelli, Secretary of State of Rhode Island; Senator Daniel F. McLaughlin, of Rhode Island; Chief Patrick J. Hurley, Holyoke, Past-President of the New England Association of Fire Chiefs; Ex-Chief William C. Shepard, of Pittsfield, Past-President of the New England Association of Fire Chiefs; Stephen C. Garrity, Massachusetts State Fire Marshal; Maxwell C. Hutchins, Massachusetts State Forest Fire Warden; Ex-Chief Daniel F. Sennott, of Boston; and P. Hildreth Parker, of Belmont, president of the Box 52 Association, Inc.

HARRY BELKNAP.

Discuss Status of Unprotected Towns

The Mid-Hudson-Halem-Valley Fire Chiefs Association met December 2 in Poughkeepsie, N. Y., with about seventy-five members present. Chief Harry A. Klein of Hope Farm was given full authority to represent the association at the meeting of the committees of Pomona Grange and the Board of Supervisors relative to the recent Pomona resolution concerning fire protection for unprotected towns. The meeting also passed a resolution which will be presented to the Boards of Supervisors of Dutchess and Putnam Counties requesting that all roads in these counties be definitely named for their entire lengths to expedite the response to emergency calls.

The following were elected as officers of the association for the year 1934: President, Chief J. D. Morehouse, Brewster; First Vice-President, Chief Richard Burger, Beacon; Second Vice-President, Chief C. Dykeman, Patterson; Third Vice-President, Chief R. H. Wickford, Wassaic; Secretary, Chief Myron L. Kilmer, Fairview; Treasurer, Chief Harry A. Klein, Hope Farm.

The next meeting will be held in Carmel, Saturday, February 4, at which time all town officers of unprotected towns will be invited to discuss ways and means of protection from fire.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Hazards of Petro Carbon

To the Editor:

There is a new product that is being sold, known as Petro Carbon. This product is used the same as coal in ranges and steam boilers. It is the residue of re-refined oil taken from oil separators in garages and oil selling stations.

I wanted to know if this product is hazardous and if there are any restrictions as to its use. It gives off an intense heat and burns the same as cannel-coal.

H. J. H.

Answer: Petro carbon, while readily inflammable, is not considered hazardous for furnace use. Being of a petroleum basis, it does not induce spontaneous heating. Furthermore, it gives off no dust in troublesome quantities, and therefore represents no dust explosion hazard. As to regulations governing its use, this can best be determined by referring to your local code of ordinances on fire prevention rules.

Gas Tanks at Fire, etc.

To the Editor:

I would be very much pleased if you would answer the following questions:

1. Is it proper to take the top off of a gas tank of an auto which is afire, when the gas is boiling? The tank is full. If the tank is nearly empty, what should be done?

2. Is it permissible for a fireman from outside of New York City to go through the New York City Fire Department training school with the idea of training firemen in his company afterwards? What would be the approximate tuition fee?

R. L.

Answer: With reference to your first question, why take the top of the gas tank off? There is a vent in the cap and gas can escape if it is not generated too quickly. A dash of cold water over the tank will reduce the rate of gas generation, and less damage will be done where you let the gas burn as it emerges from the vent, than if you make the vent larger and permit fire to enter into the tank, particularly when the tank is only partly filled.

The same applies when the tank is nearly empty. In this case there is probably a mixture of air and gas in the tank and taking off the cap might permit fire to enter and an explosion might result.

With reference to your second question, a fireman outside of New York City may attend the New York Fire College provided the city from which he comes secures permission, and stands responsibility for any injury done the fireman while serving the New York Fire Department. There is no tuition charge and the fireman is assigned to one of the New York fire stations where he has no room rent to pay. He must, however, provide his own meals.

The necessary procedure is to have one of your city officials drop a line to the Fire Commissioner of New York, requesting permission for you to attend.

N. Y. Fire Department Liability Law

To the Editor:

The question of the responsibility of towns in regard to a volunteer fireman, who is unemployed and who is injured while in line of duty, has been brought up a number of times during the past few months.

The main reason for the question being brought up is the fact that in the case of the unemployed volunteer, the belief seems to prevail that a town is not responsible for injuries, due to the fact that the injured would not suffer loss of any wage. K. R. C.

Answer: The Attorney-General of New York State has ruled that where a volunteer fireman is injured the provisions of section 205 of the General Municipal Law entitle him to be reimbursed for his injuries and that in the event such fireman is at the time of his injury unemployed his compensation should be calculated at the rate of his usual earnings while following his usual vocation when employed. So that if a volunteer fireman who, for example, is a carpenter earning a daily wage of $5 when employed, is injured while unemployed, his compensation would be based on the rate of $5 per day.

Hose Layouts

To the Editor:

We have a fire hydrant on a height, supplied by a four-inch main, "dead end"; hydrant pressure 30 lbs.

1. What N.P. can be expected through 150 feet of 2½-inch hose, ⅞-inch nozzle, with any pressure safe to put on the pumper under the conditions named?

2. Would N.P. be increased or decreased by a hook up using 50 feet of 2½-inch hose siamesed into 2 lengths of 1½-inch hose, each 50 fet, with ½-inch nozzles?

3. What would be the most effective hook-up and engine pressure under the conditions above named?

4. What effect on pressure at the said hydrants would be obtained by running the said main around the corner and down the hill, approximately 600 feet, to connect with another "dead end" 4-inch main, pressure 40 lbs?

Thanking you.

F. H. Smith.

Answer 1: One dead-end 4-inch main is not satisfactory for supplying fire streams. If the main is of considerable length, and encrusted, you will probably find that a vacuum will be created at the hydrant in the event that a pumper is operated thereon.

But assume that you will have sufficient water for supplying the layout you suggest, you will be able to secure any pressure desired, using 150 feet of 2½-inch hose with ⅞-inch nozzle, and employing pumper at the hydrant.

For this size nozzle, a pressure of 40 pounds will be satisfactory.

Assuming that this is the pressure you desire, and solving for engine pressure, we find that the engine pressure would be 51 pounds per square inch approximately.

Answer 2: If a 50-foot line of 2½-inch hose were stretched from the hydrant, and branched into two lines of 1½-inch hose, each 50 feet in length, and each equipped with ½-inch nozzle, the nozzle pressure would solve out to be 36.7 pounds, which is the pressure at each nozzle.

Thus you will see that the second layout would give you less nozzle pressure than the first, and therefore be a less desirable arrangement, unless you wished two small streams rather than a single larger stream.

Answer 3: The type of hook-up which would be most satisfactory with the above layout would depend entirely upon the pressure and size of stream needed. This in turn would depend upon the fire which is being fought.

Answer 4: Connecting the dead-end line to another 4-inch line would probably double the capacity of the hydrant at

which the engine is operating. Cross connecting is always very desirable for it gives two sources of supply, rather than one. In other words, the hydrant would be feed from two sides rather than from a single side.

CHIEF THOMAS F. DOUGHERTY RETIRES FROM NEW YORK FIRE DEPARTMENT

Author of Many Instructive Articles, and Designer of Valuable Fire Department Appliances—Three Times Winner of Administration Medal

THOMAS F. DOUGHERTY retired on December 5 as Assistant Chief of the New York Fire Department, following forty-six years service. After Chief Kenlon retired, Chief Dougherty served as Acting Chief for many months until a successor was selected.

Asst. Chief T. F. Dougherty

He joined the department in 1888 and since that time has helped fight many of the city's important fires including the Sherry-Netherland blaze in 1927. Chief Dougherty was Dean of the Fire College for twenty-one years and was recognized as an authority on firemanic subjects.

He is the inventor of many appliances now commonly used—large distributer for cellar fires, pier pipe and nozzle, right-angle nozzle, cellar pipe of new type for use from the outside when conditions prevent entry, duplex nozzle for water tower thereby doubling its output, and a short straight pipe with 45-degree-angle nozzle for fires under roofs.

Chief Dougherty wrote without remuneration fourteen pamphlets on fire-fighting methods which the National Board of Fire Underwriters distributed nationally. He is the co-author of a book, "Fire," and of several articles which have appeared in the *Saturday Evening Post*. He has delivered many papers at fire association meetings.

At a recent meeting of the Massachusetts Chiefs' Club, he was elected an honorary member for life and was presented with a gold membership badge.

On three different occasions he was awarded the Administration Medal for the best suggestion for promoting the department's efficiency.

Ziegler Charged With Attempted Assault

William Ziegler, recently deposed as head of the Hackensack, N. J., Fire Department, was charged with attempted murder by Frank P. Walsh, who now virtually holds the post of Chief. Ziegler is held in $1,500 bail and is to appear for a hearing soon.

Chief Ziegler denied the charges. He said that he called on Walsh, who lives about one-half mile away, to talk to him about his pension and to get a work bench he left at fire headquarters. Mrs. Ziegler was with him. When the couple walked into the house, Walsh ran out of the room. Amazed at this action, Mr. and Mrs. Ziegler returned to their home, and shortly afterwards police came to arrest the former Chief. Walsh had said that Ziegler carried a revolver.

Mr. Ziegler was dismissed from the department after nineteen years' service. He had but one more year to serve to be eligible for retirement with a pension.

Mayor R. A. Altschuler, in expressing his attitude on the pension question, stated:

"Pensions were never intended for members because they had served twenty years in the department and had reached the age of fifty, but for those who were disabled while in service in the discharge of their duties, and for those too old for active service." Ziegler is fifty-eight years old.

The penalty for assault with attempt to kill is a fine not to exceed $3,000 or imprisonment at hard labor for not more than twelve years.

New York to Give Lieutenant Tests

All firemen of the New York Fire Department who by February 1, 1934, will have served three years, are eligible to file application for the promotion examination to the rank of Lieutenant. No definite date has been set for the tests, but when this is done, the Municipal Civil Service Commission will receive further applications from all those who are eligible.

Rubber Suit With Separate Wool Lining

A combination rubber suit with a detachable wool lining is being manufactured by W. S. Darley & Co., Chicago. The outer garment is made with a double fly front with the seams sewed, cemented and steam vulcanized. The linings are made of Mackinaw twenty-ounce wool and by unsnapping the fasteners may be removed from the outer garment for cleaning.

Connecticut Chiefs' Club Meets

The Connecticut State Fire Chiefs' Club held a meeting on November 18, with a good number of Chiefs of the state present. This club holds its annual meeting in August, at the same time as the Connecticut State Firemen's Association and also meets three or four times a year.

The officers of the club are: President Lawrence E. Reif, Chief, New Haven Fire Department; First Vice-President, Chief John C. Moran, Hartford; Second Vice-President, Chief Henry R. Taft, Norwich; and Secretary-Treasurer, David B. Mercer, New Haven, Conn.

Department Stores Urged to be Careful

Recommendations for safeguarding the shopper against fire risks due to the congestion of Christmas buying, has been sent to the various department store heads in New York City. The suggested measures follow:

"1. Post one or more men at each entrance to prevent the carrying of lighted cigars, &c., into the building and display large, prominent signs marked 'No Smoking.'

"2. Have all discarded combustible packing material removed from the building immediately or burned in incinerators.

"3. Arrange a policing system which will be able to handle traffic, prevent overcrowding and keep aisles free from obstructions.

"4. See that no open flames used for demonstration or other purposes are at or near counters where highly inflammable material is on display.

"5. Arrange to prevent the dumping of large quantities of excelsior and other packing materials in the packing room.

"6. Have all fire extinguishing equipment inspected each morning and any defects found immediately remedied.

"7. Provide easily distinguishable exit signs and red lights over all doors leading to exits.

"8. Discontinue the practice of using small portable table stands in aisles and if such are used elsewhere have them securely fastened to the floor.

"9. Make sure that all exit doors open outwardly to their full width.

"10. Inspect workshops to prevent careless handling of combustible material.

"11. Discontinue the practice of placing paper shades over electric lights and also the use of temporary drop lights.

"12. See that the sprinkler standpipes and interior fire alarm systems are inspected daily by a competent mechanic, to insure effective use in case of emergencies.

"13. Organize and maintain an efficient fire brigade.

"14. Make sure that the wiring and other parts of the electrical illumination system are frequently inspected by a competent electrician.

"15. Eliminate the use of combustible material for decorative purposes and, if any such is used, see that it is properly flame-proofed."

A fire department has been organized at Wilbur, Wash. N. A. Smith is Chief.

A new fire station was opened at Sacramento, Cal. This is the second new fire station to be opened under the revision plan worked out by Chief Dunphy. A truck company and an engine company will be quartered in the $14,000 house.

The construction of two new fire stations is being planned as an unemployment relief measure for San Diego, Cal. One house will be erected at Pacific Beach and another at the east end of the city.

Frank Hamilton Maynard, Chairman of the Board, General Fire Extinguisher Company, Providence, R. I., died in his New York City apartment as the result of bronchial pneumonia. He was eighty-seven years old. He had been associated with the company for sixty-one years. His widow, a daughter and a stepson survive.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of November, 1933. These figures, compiled from the telegraphic reports are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending November 30

Dell, Ark.—Business property owned by W. R. Whistle	60
Mt. Pleasant, Mich.—Refinery of Roosevelt Oil Co.	125
N. Tiverton, R. I.—Oil plant of New England Terminal Co.	100
Indianapolis, Ind.—Battery plant of Ermet Products Co.	65
Provo, Utah.—Knight block destroyed	65
Oakland, Cal.—Lacquer plant of B. W. Norton Mfg. Co.	80
E. Hamilton, Ohio—Property of Hamilton Foundry & Mch. Co.	50
Boston, Mass.—Portion of Central Wharf destroyed	150
Los Angeles, Cal.—Plant of E. B. Bell & Co., damaged	65
Upper Darby, Pa.—Whse. of Millbourne Lumber & Mill Work Co.	45
Montreal, Que.—Bldg. occupied by J. R. Walker Co.	150
Deloraine, Man.—Business and residential property	50
Sydney, N. S.—Michael block destroyed	90
Springfield, Ill.—Property of Springfield Lumber Co.	50
Brownsville, Pa.—Murphy Company store destroyed	50
Jellicoe, Tenn.—Floyd's grocery, adj. theatre bldg.	50
Jarvis, Ont.—Business and residential property	50
San Francisco, Cal.—Three story apartment bldg. of G. M. Pissis	50
Canton, Ohio—Witte Bldg. destroyed	80
E. Macon, Ga.—Plant of International Agricultural Corp.	50
Bloomington, Ind.—Indiana Theatre building, destroyed	125
Windsor Farms, Va.—Bldg. at Sunnyside Store quarry	50
Richmond, Va.—Lumber whse. of the Carneal and Davis mills	200
Memphis, Tenn.—Property of King-Maase Furniture Co.	80
Deland, Ill.—Six business buildings on Main St.	50
Merritton, Ont.—Plant of Garden City Paper Mill	80
Atlanta, Ga.—Summer home of Samuel Dobbs at Lakemont	200
Pensacola, Fla.—Palafox Street restaurant and adj. property	80
Sayville, L. I., N. Y.—First reformed church destroyed	50
Merrick, L. I., N. Y.—Home of the late G. C. Walsh	80
Warrenton, Va.—Residence of W. E. Doeller destroyed	80
Blandinsville, Ill.—High school building destroyed	50
Middleport, Ohio—Property of Coverts Baking & Ice Co.	100
New Lexington, Ohio—Plant of Industrial Mineral Co., 2 mi. east	80
Harmonsburg, Pa.—Creamery plant destroyed	60
Omaha, Neb.—Dold Packing plant destroyed	50
Birmingham, Ala.—Store of Duke Bros. Furniture Co.	50
Bedford, Ind.—Office of Robin Roose Stone Mill, adj. property	50
Statesville, N. C.—Property of Dillon-Vitt Underwear Co.	150
Dublin, Ga.—Whse. of Lovett & Brinson, destroyed	80
Victoriaville, Que.—Store of Bourbeau & Compagnie	60
Marshalltown, Iowa—Clifton hotel and adj. property	100
Leesburg, Fla.—Main business block of Fruitland Park destroyed	50
Fall River, Mass.—Borden bldg., South Main St., damaged	80
Omaha, Neb.—All Saints Church damaged	50
Blythe, Cal.—Palo Verde Creamery destroyed	50
Ravenna, Ohio—Offices of State Highway Division damaged	150
Tunga, Cal.—Approximately 150 homes destroyed	2,000
Sanford, Me.—Cook apartments on Clark St. damaged	50
Greensburg, Pa.—Methodist Church destroyed	65
St. Louis, Mo.—Westborough Country Club destroyed	65
Evansville, Ind.—Mills bldg. at Boehne Tuberculosis Hospital	75
O'Leary, P. E. I.—Three whses. at produce depot, destroyed	65
Baltimore, Md.—Plant of Matthews Bros., adj. property	400
Brooklyn, N. Y.—Atlantic Yacht Club, partly destroyed	80
Northampton, Pa.—Lerner dept. store destroyed	80
Pekin, Ill.—Plant of Farmers' Grain Co. destroyed	50
Danville, Ohio—Business and residential property	25
York, S. C.—York County Court House damaged	25
Greenfield, Mass.—Henricon block damaged	165

Friends Honor D. J. Looney

A testimonial banquet was given in honor of Daniel J. Looney, Secretary of the Massachusetts State Firemen's Association, in the ballroom of the Hotel Bradford, Boston, on November 20.

The Committee of Arrangements was composed of Fred J. Dobbratz, Chairman; John H. Day, Toastmaster; Edward J. C. Powers, W. Fred Thomas, M. Joseph Manning, Michael J. McGonagle, Frank B. Cook, James J. Higgins, and officers of the Russell Fire Club.

More than 350 persons attended the dinner, which was a stag affair, with entertainment and music. Among the speakers were Congressman McCormack, Ex-Senator Mulhern, Ex-Fire Commissioner McLaughlin, and Joseph McGrath, President of the Boston City Council. High tribute was paid to "Dan" Looney by the speakers and a substantial check was given him as a token of the affection and esteem of his many friends. HARRY BELKNAP.

Probationary Firemen Given Real Tests

Probationary firemen that are now appointed by the New York Fire Department will be given actual knowledge of field conditions by being assigned to different fire companies for a one-week period. A record is kept of the manner in which the probationary firemen perform their duties.

TEST OF OIL TANK UNDER PRESSURE CAUSES $1,000,000 CONFLAGRATION

Residents Within One-Half Mile of Area of Plant Forced to Leave Homes—Not Sufficient Foam on Hand to Cope with Widespread Oil Blaze

By Harry Belknap

THREE workmen were killed, ten others suffered injuries and property damage estimated at $1,000,000 was caused by a fire which developed in the oil storage plant of the New England Terminal Company at North Tiverton, R. I., when a new tank collapsed as it was being tested with water under pressure. The resulting flood short circuited wires in a pump house and caused an explosion. The flames spread to seven oil storage tanks and a number of railroad tank cars on a siding, the fire continuing for three days until it finally burned itself out. Unsuccessful efforts were made to fight the blaze with foam lines and water was used to protect nearby houses, several of which ignited after an explosion that took place seven hours after the start of the fire. There was no foam or other protection provided on the tanks.

The fire officials at the scene were Chief John Hannon and Deputy Chief Daniel Leary, of Tiverton, R. I.; Chief W. H. Durfee, of South Tiverton, R. I.; Chief Jeremiah Sullivan, of Fall River, Mass.; Chief Irving Hammond, of Westport, R. I.; and Chief Joseph S. Lawton, of Newport, R. I.

The following apparatus responded: 500-gallon Maxim pumper and 350-gallon Reo pumper from the Tiverton Fire Department; Engine 10, a 1000-gallon American-LaFrance pumper, and Engine 5, 750-gallon Ahrens-Fox pumper, and Ladder 2, American-LaFrance truck, from the Fall River Fire Department; Maxim pumper from Westport; Engine 1A, 750 gallon American-LaFrance pumper from the Newport Fire Department; and a 350-gallon Reo pumper from Glen Farm.

Lester Creaser, of Boston, with Howard Berkinshaw and Edward Jacobs, of Providence, all American-LaFrance representatives, came to the scene with a supply of Foamite. The Newport and Glen Farm engines operated a foam stream, but as the blazing oil had spread over the yard, the foam was not sufficient to cope with the situation.

Chief Lawton, of Newport, past-President of the New England Association of Fire Chiefs, reached the fire just after an explosion had set fire to one of the Tiverton engines and ignited the side and roof of a residence. A line from a booster pump was used to put out both these fires. The blast of heat had ignited the suction and seats on the Tiverton pumper and the operator was forced to flee.

During the fire a water main burst on Route 138, the main highway from Fall River to Newport, and this greatly reduced the water pressure at hydrants adjacent to the oil plant until an engine of the Tiverton Fire Department was used to pump water around the break.

The tanks involved in the fire contained 5,072,000 gallons of inflammable fluids including gasoline, kerosene, and fuel oil. A one story administration building, shed, and pump house were destroyed besides the seven storage tanks and contents. One large tank containing kerosene escaped destruction. The plant was located on the shore of Mount Hope Bay. The towering cloud of dense black smoke could be seen for miles and crowds of spectators assembled on nearby hills. Residents of homes within a half mile area of the fire were ordered to vacate the premises. Train service on the Fall River to Newport branch of the New Haven Railway was suspended.

Firemen John Stewart, Thomas Whittaker, Frederick Westall, and James Duffy, of the Fall River Fire Department, were commended by Chief Sullivan for resucing injured workmen at the plant.

Assistance was rendered at the scene by the state police, Red Cross, and Salvation Army. Attorney General John P. Hartigan, of Rhode Island, has assigned Lieutenant John E. Baird, of the state police, to investigate the fire and determine if any negligence existed.

As an aftermath of the blaze the New England Terminal Company has instituted suit for $750,000 against the Graver Tank and Construction Company, of East Chicago, Ind., the firm which was in charge of construction of the new tank that burst under the water pressure test thereby causing the disaster.

The front cover illustration shows a group of firemen fighting this blaze, shielded against the heat by oil tanks.

CORRESPONDENCE

Fallacy of Illustrated Method

To the Editor:

I was much displeased with the front cover illustration of the November issue of FIRE ENGINEERING, "It's a Tough Job to Fight Brush Fires When Modern Appliances are Lacking." It is an uphill job often even with better appliances. But what provokes me is that these fellows are fighting brush fires stripped to the waists. That fire is so intense, particularly as it is blowing toward them, that they just could not stand the punishment.

We always see that the men are protected with plenty of clothing and are furnished with plenty of cool drinking water. As Chief, I would not permit any man to fight the fire stripped to the waist.

Personally, I have been caught at two fires, and if I had been stripped in the manner illustrated, I would have been burned to death. In 1924 we were driving across an uphill tract of Mt. Diablo. The grass had been growing for years and had not been removed. Our clutch gave out and the wind changed the direction of the fire. I remained with the chemical apparatus. The fire came higher than the tallest man and swept over me. Two hundred feet of hose and the four automobile tires burned. Had I been stripped to the waist, I would have been so badly burned that I could not have recovered. As it was all flesh exposed was badly burned.

In 1928 we were fighting a fire in a deep creek with steep banks. With a change of wind, flames swept up the creek and I had to get out. I didn't quite make it, and I crawled out on the bank. In stooping over water spilled out of the Indian fire pump I was carrying on my back, and wet my upper garment. My arms and face were badly scorched again. Had I been stripped to the waist, I would have been badly burned. Even then I probably owe my life to the water that ran out of the pump.

The illustration might tempt some one to fight a grass or brush fire stripped, and the result may be fatal.

Yours truly,

A. M. FICHTENMUELLER,
Fire Warden,
Contra Costa County, Cal.

National Guardsmen Clash with Fire Department

To the Editor:

Much has been written concerning three hundred National Guardsmen being sent to Salisbury, Md., from Baltimore. Not a word has been printed about the guardsmen attacking, without provocation, the Salisbury fire headquarters, using tear bombs. The headquarters is on the opposite side of the armory but farther down the street.

The front doors of our building were closed and about twenty men were standing on the pavement in front of the building but there was a large crowd, perhaps a thousand people farther down the street in front of the armory. The guardsmen were on the other side of the street from us occupying the whole block. One of the guardsmen threw a gas bomb into the crowd in front of our Fire Headquarters. That was the first gas bomb thrown. There was a crippled man in the crowd and our firemen opened the front door to bring him inside and rescue him from the gas fumes.

The instant our door was opened the guardsmen made an attack on us, throwing bombs inside and under the apparatus, and they even attacked one of our men who at that moment turned in a general fire alarm. Our men were able under extreme difficulty to get our equipment out of the building, which consisted of three LaFrance pumpers, a Chief's car, chemical and hose truck and a 70-foot aerial truck, the latter which we were unable to get out because of gas fumes.

At this time I arrived on the scene, realized the situation, and saw that our department and alarm system had been put out of commission by the guardsmen. I immediately ordered one of our engines, which happened to be a 1000-gallon LaFrance pumper, coupled to a hydrant with forty pounds pressure. We ran two 300-foot lines from this pumper and used two play pipes with 1⅛-inch tips. At the engine we had a pump pressure of 220 pounds. We played the streams of water on the guardsmen at a distance of thirty feet driving them up the street and knocking them right and left. Those who had kept out of the water were still throwing gas bombs at us. We worked our way up to the armory when a minister of our city came to me and asked if I would talk to General Reckord, who was in command of the guardsmen. I consented and the minister and I went inside. I was introduced to the General by the minister. I told the general that we held no malice against the guard and wanted to cooperate with them, that our action in this matter was only to keep our Fire Department intact, in order that we would be able to render fire protection to our city. I told the General that we would cut off the water if he would instruct his men to stop throwing gas bombs. The General agreed and we both went out on the front steps of the armory. I ordered my men to shut down and take up the hose and he ordered his men to stop throwing tear gas.

We ventilated our building, placed our equipment back in service and other than gas fumes still remaining in the building, we are none the worse for the experience. Our city was not under martial law and it seems to me a Fire Department should be the last thing to be put out of commission under any circumstances. Salisbury has a population of approximately 12,000, a Volunteer Fire Company and 75 active firemen. The other part of the story perhaps you have read in the newspapers.

Yours very truly,

F. A. GRIER, JR.,
Chief, Salisbury Fire Department

William Bedell, a former captain of the New York Fire Department has been appointed instructor of the Nassau County, N. Y. Training School for Firemen.

John B. Gordon, Ex-Chief of Haverhill, Mass., died on November 13, at the age of eighty-four. He served as Chief for thirty-two years and was retired on pension in 1923. He died after a long illness.

Ex-Chief Walter S. Jones Dead

Walter S. Jones, who two months ago retired as Chief of the New Rochelle, N. Y., Fire Department, died in the Flower Hospital, New York City, on December 5, where he was rushed several days previous because of intestinal trouble. He was sixty-two years old.

The Late W. S. Jones

He was made Chief of the New Rochelle Fire Department on April 1, 1920, after he had retired as Battalion Chief of the New York Fire Department. In his youth he was a great admirer of "Smoky Joe" Martin and would visit the fire house near his home to listen to stories about his hero. This led to a career in the fire service.

His service in New York City was marked by many rescues and narrow escapes. In 1903 while fighting a fire in a celluloid factory, his left leg was caught as a wall fell. Chief Jones advised comrades to cut off his leg with an axe so that he could be moved out of the way of advancing flames. Firemen succeeded in freeing him without amputation.

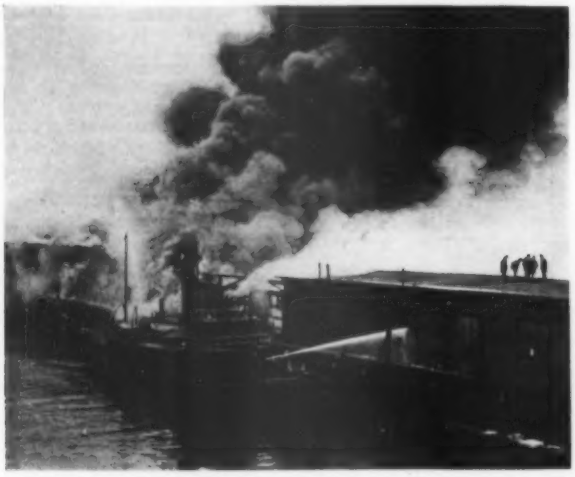
The name of Chief Jones appeared many times on the honor roll of the New York Fire Department. He is survived by his widow.

Chief Jones was succeeded as head of the New Rochelle Fire Department by Assistant Chief Oscar H. Grabb.

Four Alarms Sounded for Pier Fire

Freight sheds at the end of Central Wharf, Boston, Mass., were swept by fire on November 7 with a loss estimated at $175,000. The first alarm was sounded from Box 1257, Atlantic Avenue at Long Wharf, at 9:18 a.m.; followed by a third alarm at 9:23; and a fourth alarm at 9:27. The second alarm was skipped and a straight third ordered by Deputy Chief Louis C. I. Stickel.

The blaze originated from a stove which had been crammed full of trash and left burning with the door partly open.



Fighting the Central Wharf Fire in Boston, Mass.

Flames ignited a wooden partition and spread quickly while a delayed alarm caused by attempts to use a telephone whose wires had been burned gave the fire a big start. The sheds were one and two story frame structures divided into stalls and sheathed with metal on the water side.

The response to the alarms was as follows: First alarm, Engine Companies 4, 6, 25, 38, and 47 (fireboat) substituting for 44 (fireboat); Ladder Companies 8 and 24; Rescue Company 3, Water Tower 1, Deputy Chief of Division 1, and Chief of District 4. Third alarm, including second alarm assignments, Engine Companies 7, 8, 15, 31 (fireboat), 35, 39, 50, 2, 10, 26, 32, 33, and 43; Ladder Companies 1, 18, and 12; Water Tower 3, Chiefs of Districts 3 and 5, Chief of Department, lighting plants, and fuel wagon; fourth alarm, Engine Companies 3, 12, 13, 16, and 37; Ladder Company 10, and Chief of District 7. Wagons of the Boston Protective Department, ambulances from the Boston City Hospital, and emergency cars of the Boston Consolidated Gas Company, and the Salvation Army also responded. Engine 44 (fireboat) which had been out of service for painting, also responded.

Chief Henry A. Fox was in charge, assisted by Deputy Chief Stickel, District Chief John F. McDonough, District Chief Dennis J. Coughlin, District Chief Samuel J. Pope, and Acting District Chief Ernest G. Chittick.

The sheds involved in the fire were approximately 635 feet long, 264 feet wide at the pier end, and 35 feet high. The three Boston fireboats were joined by the Navy Tug "Nottoway" and a Boston municipal ferryboat with fire pump and hose line. The blaze started on the north side of the pier in a one-story stall and quickly spread to the large two-story shed at the end of the pier. The area swept by the fire is between 250 and 300 feet in length. Two streets lead down the wharf with buildings of brick construction in the middle. These buildings escaped damage. The steamer "Saint John," of the Eastern Steamship Lines, was towed into midstream from her berth at India Wharf, the next pier to the south.

Both the high pressure system and motor pumping engines were used in fighting the flames as well as salt water streams and Morse deck guns from the fireboats. The crew of Engine Company No. 7 operated a powerful stream from an Eastman deluge set.

The material stored in the sheds included wool, hides, cotton, oils, shoddy, old rubber, tires, Nova Scotia seaweed, and mixed freight. The fire burned fiercely and gave off dense clouds of black smoke. It was fanned by a fresh northwesterly breeze. Twenty-four hose lines were laid. Engine 44, the fireboat "Matthew J. Boyle," operated six deck guns; Engine 31, the fireboat "Angus J. McDonald," used four deck guns; and Engine 47, the fireboat "John P. Dowd," pumped water through one deck gun and one hose line. The "pup boat" (small tender) of Engine 31 was used to extinguish flames under the wharf.

Pressure was 55 pounds at the low service hydrants and ranged from 150 to 200 pounds in the high pressure mains. The amount of 2½ and 3-inch hose laid was 10,000 feet.

The damage was estimated at $40,000 to the sheds and $135,000 to their contents, making a total of $175,000.

Besides the steamer "Saint John" two freight lighters were towed out of the danger zone. The fire was brought under control in an hour, but the firemen were at work until late afternoon.

HARRY BELKNAP.

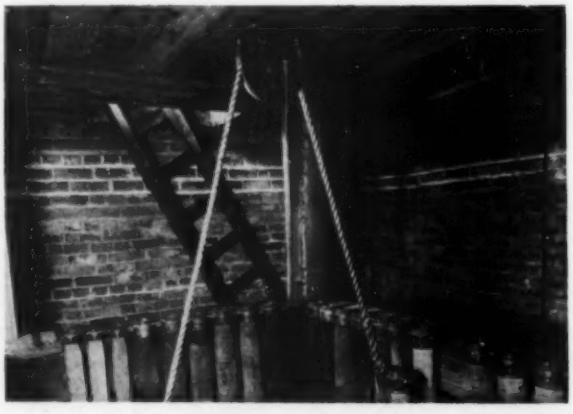
Earl A. Traeger Chief of Minneapolis

Ending the long controversy over the position of Chief of the Minneapolis, Minn., Fire Department, Battalion Chief Earl A. Traeger was finally appointed as head of the department. Mr. Traeger had been serving as Acting Chief since April 26, as successor to Charles W. Ringer, who retired on that date, after a long service with the fire-fighting forces.

Chief Earl A. Traeger

Earl A. Traeger was appointed to the Fire Department of Minneapolis on July 1, 1910. His first promotion came on November 14, 1914, when he was made a lieutenant. The next advancement was on August 23, 1918, when he was appointed as Captain. He served in this position until April 22, 1926, on which date he was made Assistant Fire Marshal. On February 1, 1928, he was again advanced to the post of Battalion Chief. He served in this capacity until the retirement of Chief Ringer.

Four men were recently sentenced to the penitentiary in connection with the burning of ice houses of the Waltham, Mass., Ice Company.



This Is the Way It Should Appear

In the description of a system of drying hose developed by Chief F. Dubois, of Kenora, Ont., appearing in the last issue of FIRE ENGINEERING, the illustration was printed upsidedown. It is reproduced herewith in its correct position. In the device, a hose clamp releases the hose from hangers at the top of the tower so that it is not necessary to send a man up the tower to lower the hose. The hose is washed and cleaned before it is dried. All hose is hung up full length with the male ends up and it is lowered from the tower by a man on the ground floor. This system of hose drying has been endorsed by members of the local Fire Commission.

East Orange Has New Headquarters

A building which expresses the modern trend in architecture, has been erected in East Orange, N. J., to serve as fire department headquarters and to house the fire alarm equipment.

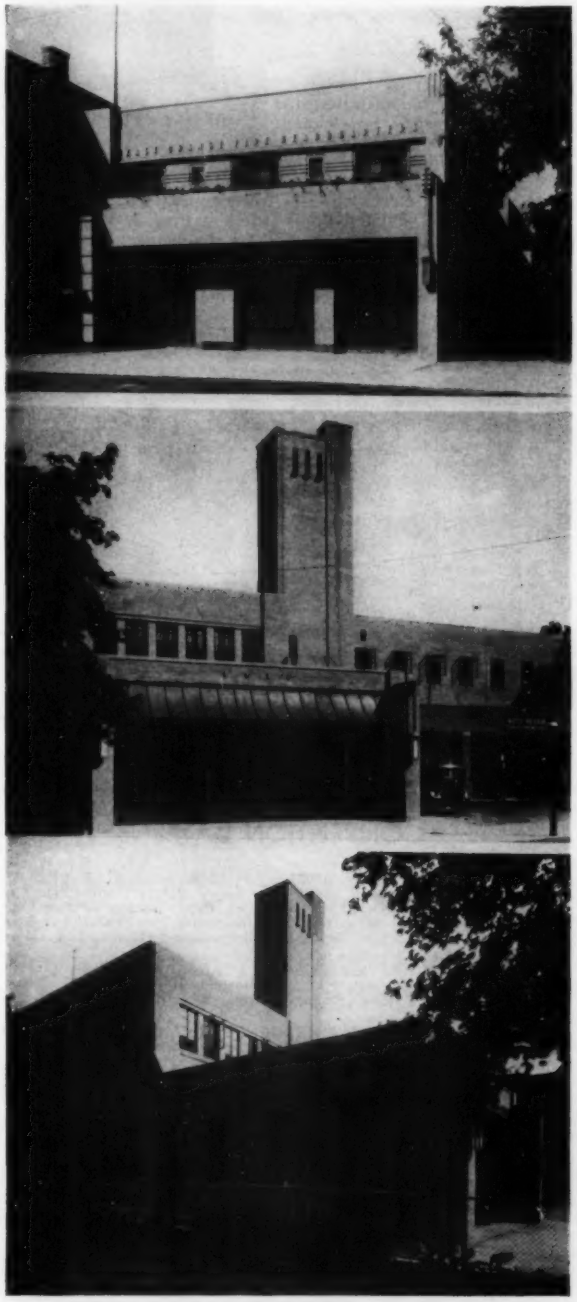
The city owned an L-shaped plot of land with an interior frontage of fifty feet on Main Street and 175 feet deep; an interior frontage of thirty-seven feet on Ashland Avenue and 100 feet deep. The old fire headquarters building containing fire apparatus and the fire alarm switchboard, occupied the Main Street front of this site. The new building was designed to house a rescue squad, one engine company, one aerial ladder, two automobiles for the use of Chief Charles A. McGinley and the Assistant Chief, two fire alarm service trucks and blank space for two future engine companies. In addition the station has living quarters for three companies, facilities for drying and storing hose, offices for the administration of the department, and repair facilities.

For the sake of economy, the fire alarm switchboard together with the batteries and generators were placed in the same building but separated from the main portion by an unpierced fire wall.

As service had to be maintained without interruption throughout the construction period, the building was built in two sections. The station is fireproof, with brick bearing walls, steel and concrete floor construction and a pile foundation.

The outside of the station is faced on all sides with a light tan ironspot brick. Copings and window sills are of Briar Hill sandstone. The base of the Main Street front is of Egyptian red granite. Letters, awning cover, flagpole holders, canopy, seal, and lamps are of green bronze. The soffit of balcony is finished with green and black tile. The flagpole is painted vermilion. Glass in the lamp on Main Street is of royal blue while the awnings are green and orange. The interior of the apparatus room is lined with machined terra cotta in light tan with green and black bands.

Excluding the cost of piling and the architect's fees, the building cost $140,000 or about forty-seven cents a cubic foot.



Front, Rear and Side of the New Fire Department Headquarters Erected in East Orange, N. J.

D. C. Fenner Made Mack Vice-President

David Colton Fenner, who for fourteen years has been Manager, Public Works Department, Mack-International Motor Truck Corporation, has been elected Vice-President of that corporation. He is chairman of the Motor Vehicle Conference Committee, member of the Legislative Committee of the National Automobile Chamber of Commerce, Director of the New York Motor Truck Association, Vice-President and Director of the Automobile Merchants' Association of New York, and has been prominent in public relations and legislative work for that automotive industry for many years.

During the war, Mr. Fenner served on the War Industries Board, under Bernard M. Baruch, in charge of motor truck work in the Automotive Division. He was graduated from Sheffield Scientific School of Yale University in 1896 with the degree of Ph.B., and from Massachusetts Institute of Technology in 1898 as a B.S.

His first association with the development of motor fire apparatus, in which he has been prominently identified ever since, was with the Knox Automobile Company, which he left in 1910 to serve successively with the Alden Sampson Division of the U. S. Motor Corporation, the Saurer Motor Company, the Mack Brothers Motor Car Company, the International Motor Company, and the General Vehicle Company.

In 1915 Mr. Fenner rejoined the Mack forces. In addition to having charge of fire apparatus activities, he is active before the National Recovery Administration in the development of codes affecting the motor vehicle industry.

Fire Prevention or a Box Call?

By "Art" Zimmerman

Engine Co. No. 1, Kohler, Wis., Fire Department

Whenever you see a fire, no matter big or small,
Don't hesitate a moment, to place a fire call,
Don't get yourself excited, but simply use your head,
Run over to the corner, pull the box that's painted red.

Stay at the box by all means, to let the firemen know,
Just where the fire's burning, and tell them where to go,
'Cause every minute wasted, when on a fire run,
Gives fire much more headway, and lots more damage done.

The little box on the corner, painted up so bright and red,
Would be of little use, dear folks, if we would use our head.
When we see a fire hazard, let's lick it on the spot,
'Cause that's the time to fight it, folks—not when it gets too hot!

It sure may save a life or two, and isn't it worth while
To Prevent the Fire hazards, and get rid of the rubbish pile?
Every time you see a fire truck come speeding down the street,
It's because someone was careless, or didn't keep things neat.

So let's plug for Fire Prevention, and keep plugging good and strong,
Then we'll keep the fire engines in the stations where they belong.

PROPOSED IMPROVEMENTS

Meadville, Pa.—City council has taken action to purchase new 750 gal. pumper and a new truck for the fire department, according to reports.

Burlington, N. C.—Fire department recommended new fire alarm system and also request purchase of new ladder truck.

Gallipolis, Ohio—Reports state city commission and City Manager J. R. Gwinn considering purchase of new fire truck.

Lincoln, Neb.—Fire Chief Hansen requested city council to install new fire alarm system at estimated cost of $75,000.

Chicago, Ill.—City applied for federal loan of $12,000,000 to finance complete rehabilitation of the fire and police alarm system.

Marshalltown, Iowa—Fire Chief C. C. Pegman recommended various fire department improvements including new ladder truck equipped with small pump. Estimated cost from $7,000 to $8,000.

Federalsburg, Md.—Committee appointed to investigate various types of apparatus with view of purchasing additional fire engine.

Everett, Mass.—To apply for federal funds to finance construction of a new fire alarm headquarters building.

Vitalarm Fire Signal

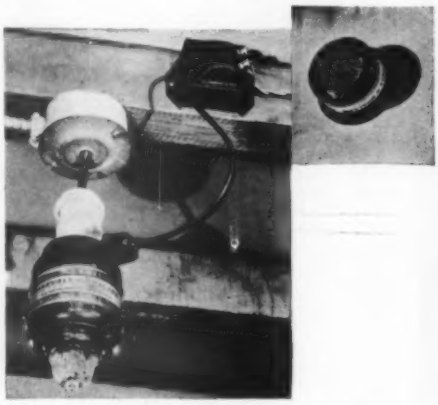
An individual fire alarm unit which combines the rate-of-rise and fixed thermostats principles to operate an electric howler is being manufactured by the Gamewell Company, Newton, Mass., and is being marketed under the name of "Vitalarm." It was designed as protection for homes, hospitals, institutions, etc.

All that is necessary to install this fire alarm unit is to screw it into an electric light socket and to leave on the current. It has a small neon type lamp which consumes less than 0.4 watt and which costs about three cents a month to operate. This lamp glows constantly and indicates that the device is functioning.

Where the signal is installed in a place where an alarm would not be very audible, the signals can be provided with an extension so that the electrically operated alarm will sound in the most suitable location. On the upper part of each Vitalarm signal are two small holes into which a small Vitalarm extension plug can easily be inserted. The extension plug is attached to a flexible cord leading to a small transformer which may be mounted at any convenient place near the signal. From the terminals of the transformer two wires can be run to the howler.

The rate-of-rise thermostatic principle is employed to insure speed of operation. A sustained rise of fifteen to twenty degrees a minute for one or two minutes will sound the alarm even though the initial temperature hovers about the freezing point. The fixed thermostatic principle assures absolute operation. Although the manufacturers claim that it should rarely be called upon to do so, the fixed thermostat serves as a monitor over the rate-of-rise feature. A burned-out lamp will not prevent the signal from functioning.

The Vitalarm comes in various styles so that the device will harmonize with the furnishings and decorations of a room. They are also made as a ceiling mount or a wall mount although the ceiling installation is considered more effective.



Three Views of the Vitalarm Signal

Left, showing the convenient extension plug, cord and transformer for connecting the signal in basement or attic with extension howler in bedroom. The howler is illustrated in the inset. Above are two styles of the Vitalarm Signal.

While rushing with a pulmotor to render first aid for a strangled child, an Ogden, Utah, apparatus crashed into an automobile and injured a fireman and a woman passenger in the automobile. The apparatus broke through a viaduct railing and threatened to drop to the street fifty feet below.

Nashville, Tenn., has authorized the purchase of new fire apparatus.

Northern Pump Promotes Rusch

Hugh L. Rusch, who joined the organization of the Northern Pump Company, Minneapolis, a year and one-half ago, has been elected Vice-President and has been appointed Eastern Sales Manager.

He was formerly Supervisor of the Technical Data Section and of the Performance Report Section of the Johns-Manville Corporation. Prior to that he was Eastern District Manager for Arthur C. Nielsen, Inc.

Eastern headquarters of the Northern Pump Company are in the Chrysler Building, New York City.

Hugh L. Rusch

Drill Tower Plans

Plans have been drawn for a fire drill tower to be erected at Memphis, Tenn. The tower will be six stories high and it will be constructed of brick and reinforced concrete. It will have steel steps and steel fire escapes on the exterior. The tower will be seventeen feet square and will have a smoke demonstrating room and a room for demonstrating the operation of sprinkler systems.

Chief E. E. Bures, Prague, Neb., was elected President of the Saunders County Volunteer Firemen's Association at its annual convention held at Malmo. The next convention will be held at Cedar Bluffs, Neb.

CONVENTION DATES

Dec. 11—PROVIDENCE OF QUEBEC POLICE AND FIRE CHIEFS' ASSOCIATION. Special Meeting for active members only, Prince of Wales Salon, Windsor Hotel, Montreal, Can. Second Annual Convention, 1934, at Three Rivers, Que. Secretary-Treasurer, Chief Robert O. Harrington, Fire Dept., McColl-Frontenac Oil Co., Ltd., Montreal.

Dec. 20—FIRE CHIEFS' EMERGENCY PLAN, of Westchester County, N. Y. Regular Meeting, Fire Headquarters, Harrison, N. Y. Secretary-Treasurer, Captain Eugene Riviere, Fire Headquarters, Larchmont, N. Y.

Dec. 27.—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY. Regular Meeting, Fire Headquarters, Ridgefield, Conn. Secretary-Treasurer, John Moehring, Toms River, Stamford, Conn.

Feb. 4, 1934—MID-HUDSON-HARLEM VALLEY FIRE CHIEFS' ASSOCIATION. Next Meeting, Carmel, N. Y. Secretary, Chief Myron L. Kilmer, Fairview, N. Y.

April, 1934—CONNECTICUT FIRE CHIEFS' CLUB. Next Meeting, Norwich, Conn., exact date to be announced later. Secretary-Treasurer, D. B. Mercer, 108 Harrison St., New Haven, Conn.

May 9, 1934—DEL-MAR-VA VOLUNTEER FIREMEN'S ASSOCIATION. 5th Annual Convention, Lewes, Del. Secretary, Fred Brown, Minquadale, Del.

June 12-13, 1934—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. 62nd Annual Convention, Hibbing, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

June 20-22, 1934—MARYLAND STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Cambridge, Md. Secretary, George R. Lindsay, Hagerstown, Md.

July 17-18, 1934—MARITIME FIRE CHIEFS' ASSOCIATION. 20th Annual Convention, Truro, N. S., Can. Secretary-Treasurer, K. J. MacRae, Capt. Salvage Corp, St. John, N. B.

FIREMEN SHOULD VENTILATE TO SAFEGUARD PROPERTY

Gases Must be Permitted to Escape to Prevent the Heated Air from Working to All Parts of the Building on Fire

By Leslie Shewan
District Chief, Winnipeg, Canada

FIRE will not burn vigorously when smoke is prevalent. How many times have you received alarms for fires that have gone out? Last year we had three fires in Winnipeg that were never reported during the time of the actual fire. In one of the Piggly Wiggly stores, the manager arrived on Saturday morning to open the store, about seven thirty. He was met with a gush of stagnant smoke. That fire had started in the basement, burned vigorously for a time, no doubt. It had ruined all the stock in the store, but no one happened to pass that building when the thick smoke and gases were sweeping out. It was a well constructed building, well protected, and the fire had gone out for lack of oxygen.

Leslie Shewan

That is not the only one. Where you have a fire burning, oxygen is present as well as carbon monoxide, and carbon dioxide. Possibly the fire reached that point where the carbon monoxide and the carbon dioxide was a 50-50 proposition, and the dioxide won.

What Ventilation Accomplishes

When you ventilate a building you disclose possibly the seat of the fire. Putting water into smoke does not put out a fire. If you are going to put the fire out, you must be able to put the water on it, and that is the reason why sometimes when you come away from a fire you find you have been able to extinguish it with little or no loss, conditions were favorable so you were able to get at it. You made the conditions favorable by opening at the highest point.

But how are you going to cool a fire if you don't know where it is? Or, how are you going to smother it if the heat and gases are so great you cannot get near it?

Ventilation will carry smoke away and allow fuel in the form of oxygen to enter. Smoke, heat and gases pass through the openings by force of built up pressure.

The theory of ventilation is just the same as the flow of water inverted. If I took a barrel of water and turned it in here it would go down to the floor below, and it would keep going, and reach its lowest level. When a fire is burning, whether big or small, the distillation from whatever is burning goes to the top of the building. Smoke, heat and gases escape through the most convenient openings.

Upward Course of Fire

Fire will never travel any other way than vertically until it meets some resistance. When it meets resistance it begins to come down, it spreads laterally. But if there is an opening at the top it will go up—neither to the right, the left, the back, nor the front.

The construction of a building is a factor in the spread of fire. You know that yourself. A lot of old buildings offer no resistance whatever to fire, open elevator shafts, etc. There is a little more resistance in a mill constructed building.

Firemen have a hot time to extinguish fire in fire-resisting buildings. They are even harder to ventilate for the reason you have so much to consider. Ventilation is, technically, opening up a building, opening the penthouse doors, taking the manholes off, or whatever you like to call them. It is necessary to open all these enclosures, making sure there is no obstruction below.

I was talking to one of the captains of a truck company in Minneapolis, and he told me of a fire recently. Two men he sent to the roof of that building performed the operation of opening it up. They reported to him afterwards that the coverings on the scuttle holes were jumping and jumping. Time and again when a firemen went to the top of a building and just touched them, up they come. If you are not just right on your toes they will get you.

Mushrooming is a fire department term and, make no mistake, it takes place just like lightning. That is exactly what fire does—up it goes, vertically, floor by floor.

(Abstract of paper at the Northwest Fire School, Minnesota University.)

Connecticut Chiefs' Plan Meets

The Fairfield County, Conn., Fire Chiefs' Emergency Plan held its regular meeting on the evening of Wednesday, November 22, at Fire Headquarters, Darien, Conn. There were over sixty Chiefs and other Fire Department officers in attendance. The members were welcomed by Mr. Moury, Selectman of Darien.

The regular order of business was suspended to enable H. E. Newell, of the National Board of Fire Underwriters, who was compelled to leave early, on account of another engagement, to address the Plan. Mr. Newell spoke on the hazards of refrigeration. He emphasized the need of firemen to thoroughly acquaint themselves with the various types of refrigerants and their action. He described these chemicals, and what their special hazards were; whether poisonous, inflammable or explosive. The simplest way to know when the various forms of refrigerants were to be met with, would be to keep a list of the different makes of machines and the chemicals in use by each. The Fire Department should keep on file the different books for service men or get the local service men to go over the types of machines with them. Mr. Newell described the necessary operations for shutting off leaks in refrigerating machines. In the case of apartment houses where the evaporator was large enough to service several floors, the case was more complicated. Mr. Newell offered the cooperation of the National Board and the Underwriters' Laboratories when needed.

Other speakers at the meeting were Capt. Connor, of Darien, former Captain, New York Fire Department; Chief Sullivan, President, Fire Chiefs' Emergency Plan; Chief Millspaugh, Darien; Capt. Dawkins, Harrison, N. Y., and Chief Gisborne, Sound Beach. Refreshments were served after the meeting, by courtesy of the Darien department.

On invitation of Chief Horace A. Walker, it was decided to hold the next meeting at Ridgefield, Conn., on the evening of Wednesday, December 27.

McSweeney, Boston Fire Commissioner

Eugene F. McSweeney has been appointed Fire Commissioner of Boston, Mass., by Mayor James M. Curley to succeed Edward F. McLaughlin, who resigned recently.

Eugene F. McSweeney

Mr. McSweeney was born in Marlboro, Mass., and is fifty-three years of age. He graduated from Manhattan College in New York. He is a member of the Boston City Club, the Commonwealth Country Club, the Boston Chamber of Commerce, and the Hyannisport Club.

He served as assistant publisher of the Hearst newspapers in Boston and for six years was President of the Eugene M. McSweeney Advertising Agency.

He is married and has three children.

In a newspaper interview shortly after being appointed fire commissioner Mr. McSweeney said:

"This is an executive position and my duties are purely executive. I shall leave the duty of fighting fires to Chief Henry A. Fox, one of the ablest Fire Chiefs in America in my opinion. That is his job. We shall both of us have plenty to do."

HARRY BELKNAP.

Officers of Volunteer Fire Department

In response to an inquiry from the Chief of a Fire Department in a community of six thousand persons concerning the officers of a volunteer Fire Department, information was collected on the current practice. The information received follows:

Chief J. W. Randlette, Richmond, Me.: Our department is controlled by a town ordinance which specifies that there shall be a Chief, first and second assistants, and each company shall have a foreman and assistant foreman. The Chiefs are elected annually by the department, the foreman and assistant foreman are elected annually by the members of each company. The town at its annual meeting elects three fire wardens, and from these men are chosen the Chiefs and Assistant Chiefs. None of the men are full time men. They are paid a small amount each month and receive hourly compensation when working at a fire. I believe most small town departments in Maine have a similar set up.

It is customary for all departments to have one man designated as Chief, and most have assistants. Best results are obtained by having a foreman for each company. The company officer has charge of the equipment when not in use.

Chief James N. Sullivan, Greenwich, Conn.: Most departments have a Chief, First Assistant and Second Assistant Chief, Captain, First and Second Lieutenants.

I have always thought volunteer Fire Departments change their officers too often. The department gets a set back every year. When a department gets a good officer it should keep him as long as he will serve at that post. While every man in the department is looking for the highest position, few are able to handle the work.

Chief G. H. Neff, Grafton, Ill.: Our organization is based on one having a single station which protects a scattered industrial and commercial area. The department consists of one Chief, one Assistant Chief, one Captain and seventeen volunteer firemen. We have found this organization entirely adequate during the past six years.

Assuming that we had more than one piece of equipment housed in the same or different stations, I would favor a Chief, an Assistant Chief, a Captain, with a Captain and Lieutenant for each additional company or station. The Captain housed at the headquarters station would outrank all the Captains in outlying stations.

Elbert C. Bailey, Secretary, Del-Mar-Va Volunteer Firemen's Association, Laurel, Del.: The departments in this district consist of all volunteer men. The officers include a Chief, First Assistant Chief and Second Assistant Chief, and as many Engineers as the department has pieces of apparatus. There is an assistant for each engineer. In most of the departments there is a day man and a night man on duty at the fire house to care for equipment and to answer and sound alarms. These men are paid but the officers and the volunteer firemen are not.

Rhode Island Chiefs Meet in Providence

W. D. Lindsly, Vice-President, Garrison Fire Detecting System, and Percy Bugbee, Assistant Managing Director of the National Fire Protection Association were the speakers at the monthly meeting of the Fire Chiefs Club of Rhode Island held in Providence, November 9.

Mr. Lindsly gave a demonstration and illustrated talk on spontaneous combustion. The demonstration of the fire detecting and alarm system held the interest of the members. Mr. Bugbee spoke of the new Volunteer Firemen Section. The club voted to endorse the project and made Mr. Bugbee an honorary life member.

Chief Granger Orders Changes

Chief James E. Granger of the Cleveland, Ohio, Fire Department has ordered a number of changes in the organization of the department. He has restored the Arson Squad which was abolished by a previous Safety Director. He abolished the division of the city into two districts, transferred five Battalion Chiefs, five Captains, eleven Lieutenants and six first grade firemen. In most cases the men have been moved near to their homes.

A squad car has been added to the Fire Department of Wheeling, W. Va. Six men were moved from three outlying stations to the central station. The squad car answers all alarms outside of the business area.

COMPLETE SYSTEM OF INSPECTION RECORDS LOWERS FIRE LOSSES

Every Fireman of Asheville, N. C., Is Required to Make Inspections of Buildings Within His Respective District

By A. L. DUCKETT
Chief of Fire Department, Asheville, N. C.

EACH member of the department is required to spend one day of the week in which he is off duty during the day in making inspections. The men work in pairs changing partners each inspection day, also inspecting a different section of the business district until they have completed the circuit.

Our records are made up of a card for each business house contained in the business district. On this card is shown the owner of the building, owner of the business occupying building, agent in charge of building, street location, for what purpose the building is used and was designed. The card shows the condition of the building starting with the basement and taking each floor separately; condition of fire escapes, chimney, flues, stoves and stovepipes, electric wiring, closets, yards, location of exits, location of any trash or fire hazard; if gasoline is kept, nature of container and general condition of the building. The card shows the date and by whom the inspection is made.

Each pair of inspectors has a pad of blanks which are made to correspond with a single inspection on the permanent record. This blank is filled in by the inspectors, dated and signed and returned to the office. Here the record of the inspection is transferred to the corresponding card for filing.

If the building is found to be in good condition the inspector's blank is destroyed, but if not, the blank is given to an officer of the department who visits the building and informs the owner as to what the inspectors have reported and requests that he correct the violations. The officer reports on the reverse side of the blank if the violation has been corrected and if not just what was the outcome of his call. If the violation was corrected the record is so made on the permanent card showing date of correction and name of officer reporting. If the violation has not been corrected the blank is filed with violations and the

Date
Street No.
Owner
Occupant
Agent (if any)
How used
Condition—General
Basement
First Floor
Second Floor
Other Floors
Attic
Fire Walls
Fire Escapes
Exits
Chimneys
Flues
Stoves
Stovepipes
Hay Stored
Gasoline—How kept
Trash and Rubbish
Oily Rags
Closets
Electric Wiring
Yards
Remarks:
Inspectors

Inspector's Field Report

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The fire apparatus builders who buy Hale pumps know that Hale pumps cost more. They know equally well that Hale pumps are worth more on account of better design, better materials, more accurate workmanship, better performance and longer, effective life.

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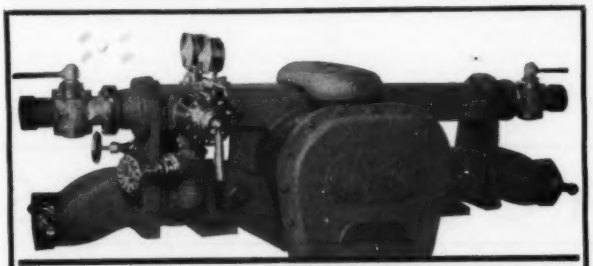
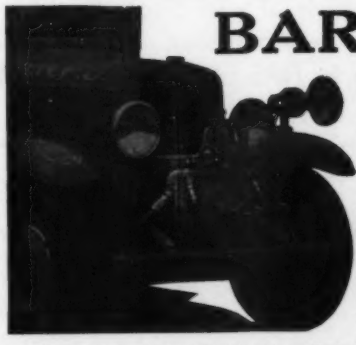


NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

BARTON
Fire Pumps



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Battle Creek, Michigan

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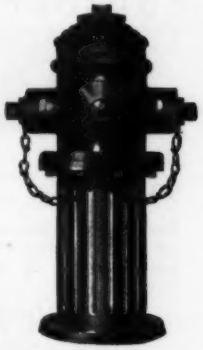

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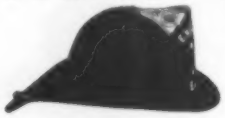

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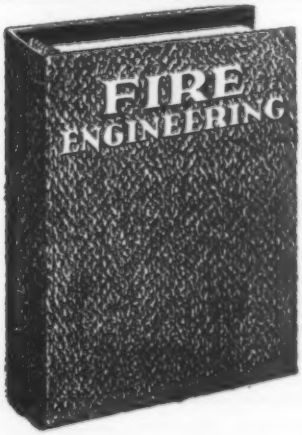

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NAME.....

POSITION.....

ADDRESS.....

above procedure is followed weekly until the building is put in a safe condition.

Where serious hazards are found or when the officers fail to get the desired results, the blank is given to the Chief or Assistant Chief of the department for them to take such action as might be necessary. This is very seldom since the public at large cooperate with us in a very fine manner. In addition, we have on a wall of the office a large map of the business district on which the buildings which are in an unsatisfactory condition are shown by means of a red pin. This pin is taken out when corrections have been made. The inspections in the principal business district are made by members from Headquarters. Each sub-station carrys on the same work in their district, inspecting mercantile houses, apartment houses and the like. The same method is employed by these stations as by Headquarters.

FIRE INSPECTION REPORT
CITY OF ASHEVILLE, N. C.—FIRE DEPT.

HOW USED

STREET AND NUMBER

	DATE	CODE	DATE	CODE	DATE	CODE	DATE	CODE
GENERAL CONDITIONS								
BASEMENT								
FIRST FLOOR								
SECOND FLOOR								
OTHER FLOORS								
ATTIC								
FIRE WALLS								
FIRE ESCAPES								
EXITS								
CHIMNEYS								

	DATE	CODE	DATE	CODE	DATE	CODE	DATE	CODE
FLUES								
STOVES								
STOVE PIPES								
HAY STORED								
GASOLINE: HOW KEPT								
TRASH & RUBBISH								
OILY RAGS								
CLOSETS								
ELECTRIC WIRING								
YARDS								

REMARKS

INSPECTORS	DATE	OFFICERS	DATE

OWNER OCCUPANT AGENT

Report Card That is Kept on File—the Reverse Side is the Same

The Building Inspector is required to make an aunual inspection of the entire city. The business districts are handled by the Fire Department. It requires in the neighborhood of five weeks to make a complete circuit of these districts which causes each building to be inspected every four or five weeks. The factories are inspected along with the business districts.

Officers of the department are required to spend one day each week during their week of night duty in inspecting. These officers handle all the violations which have been reported by the inspectors. In case there are not enough violations to fill the time required, they may, in company with another member, fill in for regular inspections.

This method of inspecting has given very satisfactory results. Since adopting this method we have decreased our fires in the business districts and consequently have reduced our losses. Owing to the fact that each separate establishment has a separate card in our files, we can at any time refer to this card and get a complete record of the condition of the building in question for any past length of time. This enables us also to know the places that are in the habit of being in bad condition and to keep a closer check. It also gives the members of the department a chance to acquaint themselves with each building in the city. Such knowledge is invaluable in time of fire. In cooperation with other departments of the city, when the inspectors find any unsanitary condition, this fact is passed on to the Health Department for action.

Oil Burners Discussed by N. Y. Chiefs' Plan

The regular monthly meeting of the Fire Chiefs Emergency Plan was held in the meeting hall of the Exempt Firemen's Association, Church Street, New Rochelle, N. Y., on the evening of Wednesday, November 15. Corporation Counsel Patrick J. Rooney, representing the Mayor of New Rochelle, who was absent in Washington, welcomed the Chiefs to the city. On calling for reports of committees by Chairman Sullivan, Captain Dawkins, for the Membership Committee, said that one new member had been secured. Ex-Chief Wooley reported for the Ways and Means Committee that, while considerable data had been gathered by the previous committee in charge of the zoning plan, no information had been received on water supply of the various cities and villages of Westchester County. His committee proposed to gather full data on water supply, police cooperation, geographical situation and possible zones. It was planned to arrange meetings of the Chiefs of the various zones. Finally, it was hoped soon to complete the data and publish it preferably in loose leaf form, so that additions and corrections could be made from time to time.

Chief Veit, President of the Fairfield County Plan, reported that the Connecticut organization now had 68 members, and it was hoped to extend the Plan to the next county.

It was decided to have the Secretary prepare a form of membership application blank and submit it at the next meeting for approval.

Chief John J. Brennan, of Pelham Manor, read a short paper on Oil Burners, dividing the burners into three types, domestic, commercial and industrial. He emphasized the fact that the National Board of Fire Underwriters does not approve oil burners but marks them as inspected. Every town, he believed, should have a code governing installation. Better still, he thought that there should be a code adopted by Westchester County.

Chief Brennan then introduced Harry Tapp, Executive Secretary of the American Oil Burner Association, who answered a number of questions by the Chiefs present. Mr. Tapp said that there was no difference from the standpoint of fire hazard between the gun type and rotary oil burner. The greatest hazard was in the matter of installation, the personal element entering largely into the matter. This arose from the ignorance of unqualified men or the acts of the chiseler. He suggested that if the men who install burners were compelled to obtain permits from the Chief, that the dishonest men could be weeded out and the manufacturers would be forced to employ only reputable dealers to represent them. He agreed with a questioner who asked whether fires could happen through defective controls. Such fires have occurred through too high a flash point; through variable draft and through improper adjustment of electrodes. Supervision and care of the burner were of the utmost importance. The discussion of the question was quite general, among those taking part being Chiefs Chambers, Grabb, Veit, Gibson, Burrel, Ex-Chief Mulcahey, Ex-Chief Lemmon and Captains Siller, of Yonkers, and Dawkins.

On invitation of Chief Gus J. Burrel, it was decided to hold the next meeting at Harrison, N. Y., on the evening of December 20.

A demonstration of an automatic respirator and inhalator was given by Carl J. Conkey, New York Representative of the E. & J. Company, Los Angeles, Cal.

A repast was served by the New Rochelle Department at the close of the meeting.

History of Suffolk County Firemen

J. Fred Flugrath, for thirty-five years Secretary of the Suffolk County Volunteer Firemen's Association, an organization of Long Island, New York, firemen has prepared an official history of the association. It is termed the Blue Book, and it contains illustrations of former tournaments and events, and pictures of men who had an active part in this group.

A coal truck was used to save four persons trapped by a fire in Camden, N. J. A truck driver passing with his truck, backed his car against the building and elevated the body. A fireman on his way to his station, mounted the truck and helped guide the victims to safety.

FALSE ALARMS

CONSIDERATE

Mike was a bachelor. Into his otherwise orderly life, came the chaos of election night. He was forced to work on a longer shift due to the expected large number of minor alarms. Next day he told of his experience at his boarding house.

"Now I'm lucky to have a fine landlady," he said. "When I came to the dining room last night after my regular hour, I found she saved me the most tender part of the chicken."

"What part was that?"

"The gravy," he replied.

A crook broke into our house the other night. It serves him right for being a criminal.

OBEYED RULE

The attractive young lady tripped and fell. Only a reporter and a fireman who was sweeping the sidewalk saw the accident. Nothing was done.

"How come you didn't help that lady up when she tripped?" asked the reporter.

"I was taught never to have anything to do with a fallen woman."

A sidewalk philosopher is now working for his second million. He became weary working for his first.

RESTATED

The editor, who at one time was Chief of the department, was at odds with the present incumbent. Many stories in circulation concerning the Chief were attributed to the editor. One day the two met.

"Say," yelled the Chief, "what do you mean by telling it around that my 'head was made of solid ivory'?"

"I never used such language," said the other in self-defense. "I merely stated that you carried more oseous matter above your shoulders than any other man I had ever met."

"Oh, well, that's different."

Alimony was invented so that a woman wouldn't have to take a man's name in vain.

TIT FOR TAT

An alarm was sounded for a small fire at the lunatic asylum. As the first piece of apparatus came to a stop, an inmate who was working on the grounds nearby, shouted to the driver, "How the hell are you?"

"Oh, I'm all right, thank you," he answered.

"Look here, my good man," said the inmate angrily, "I asked you an uncivil question and I expect an uncivil answer."

A bride thinks of but three things as she enters the church:

"Aisle, Altar, Hymn!"

A RECIPE

Take one reckless natural born fool; two or three drinks of bad liquor; a fast, high-powered car; soak the fool well in the liquor; place in the car and let him go. After due time remove the wreckage, place in black satin-lined box and garnish with flowers.

Lots of men say very little on the golf links, but where they spit, the grass never grows again.

QUITE CAPABLE

On a way to reach a fire, a volunteer was blocked by a lady motorist. He watched her wave her hands in three or four different directions at an intersection in the road. The one in the rear decided she was going to make a right turn and he crashed into her as she changed her mind. The fireman forgot his mission and went out to do a little interviewing.

"Well, all I can say," said the miss, "is that I'm sorry."

"Is that all you can say?"

"Why, yes."

"Well then," said the volunteer as he carefully cleared his throat, "you listen to me." And he proceeded to exercise his vocabulary.

"I've just taken a shine to your wife," said the stork to the Negro as he left the house.

OVER HEAD

Two rookies were discussing some of the lectures at the fire school.

Said one, "I like the chemistry talks when they're not over my head."

Said the other, "That's the way I feel about pigeons."

"Do you neck?"

"That's my business!"

"Ah, a professional."

ORDER OF EVENTS

The Commissioner and his wife were invited out for dinner. It was 6:30 p.m. and she laid out his dress suit.

The hours sped onward and still he did not put in his appearance. It was 11:30 and she laid out his pajamas.

Slowly the midnight hours dragged on. At 3:30 she heard him coming home at last.

Then she laid him out.

All work and no play makes jack.

—Drawing by "Art" Espey

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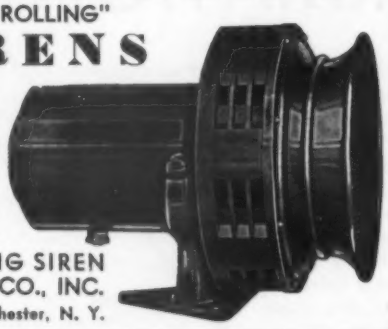

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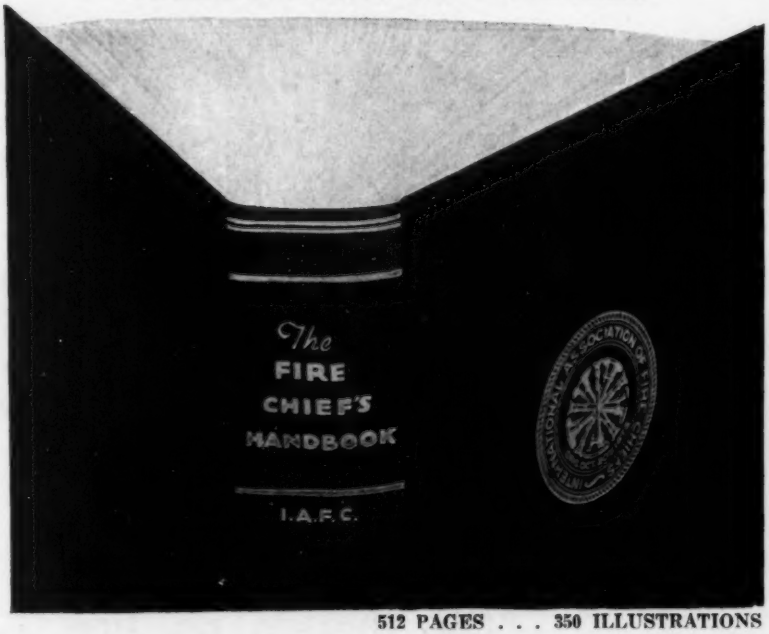

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